# BRITISH ARMY SURGEONS COMMISSIONED 1840–1909 WITH WEST INDIAN/WEST AFRICAN SERVICE: A PROSOPOGRAPHICAL EVALUATION

by

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In the decade of the 1840s the British Army Medical Department (AMD) commissioned 419 assistant surgeons to care for the health of its soldiers. Of this total 75 saw service in the West Indies or West Africa or both, some 18 per cent of those commissioned. For 67 of these officers the dates of their deaths are known. Seven died within less than one year of their commission date and another seven died before their second year of service had ended. More than 20 per cent were dead within two years of commissioning. Of the 61 for whom the place of death is recorded, 18 (almost 30 per cent) died in the West Indies and 13 (over 21 per cent) died in West Africa. The term "white man's grave" was regularly applied to the coast of West Africa during the 1800s, but service in the West Indies was also dangerous for those assigned to regiments stationed there, especially to the West Indian regiments that, as of 1819, regularly served in West Africa as well. Almost 33 per cent of the 67 surgeons of the 1840s would be dead before the fifth anniversary of their commissioning.

Nelson Lankford, in his detailed and stimulating study of the British army surgeon from 1860 to 1914, confirms the existence of "certain stereotypes doctors held about different stations. The West Indies and the west coast of Africa were the least healthy and least popular stations. The reputations of these colonies was [sic] long-standing, continuing throughout the century". He adds that "because the department commonly sent officers of proven mediocrity there, self-respecting surgeons did not wish to earn a similar reputation by association". How accurate were these stereotypes of the West Indies and West Africa? Did the AMD routinely order its average and poorer surgeons to serve troops stationed in these two regions, reasoning that their loss would be least harmful to the army? Fortunately, data exist that provide answers to these and related questions.

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<sup>&</sup>lt;sup>1</sup> Roger N. Buckley, Slaves in red coats: the British West India regiments, 1795–1815, New Haven, Conn., Yale University Press, 1979, p. 96, refers to the initial transfer of the 2nd WIR to Sierra Leone in his excellent general study of these regiments. Christopher Fyfe, A history of Sierra Leone, Oxford University Press, 1962, e.g., pp. 135, 141, 215, gives many details of their West African service. Two among many sources to consider the deadliness of the two regions are Roger N. Buckley, 'The destruction of the British army in the West Indies, 1793–1815: a medical history', J. Soc. Army Hist. Res., summer, 1978, 56: 79–92, and Philip D. Curtin, 'The end of the "white man's grave"'? nineteenth century mortality in West Africa, J. Interdiscip. Hist., summer 1990, 21: 63–88.

<sup>&</sup>lt;sup>2</sup> Nelson D. Lankford, 'Status, professionalism, and bureaucracy: the surgeon in the British army, 1860–1914', PhD diss., Indiana University, 1976, p. 130.

<sup>&</sup>lt;sup>3</sup> Philip D. Curtin, *Death by migration: Europe's encounter with the tropical world in the nineteenth century*, Cambridge University Press, 1989, a quantitative study, deals with "the relocation costs among European soldiers

#### THE SAMPLE

From 1840 to 1909 the rolls of Johnston and Drew provide biographical information on 3,639 commissioned army surgeons, an average of 520 per decade, though the impact of the Crimean War in the 1850s with its 911 commissions boosted this from the 455 average of the other six decades,<sup>4</sup> By examining the varied data for each officer it is possible to determine most of those who had service time in the West Indies or in West Africa or in both, though the length of service in these regions is frequently impossible to determine. The entries range from a single line, as for "Henry O'Hara, A. S. Staff, 15 Dec. 1840. d. in Jamaica, 27 July 1841", to twenty or more lines for those knighted or otherwise recognized for their exceptional army medical careers, as with Sir Anthony Dickson Home who served with the 3rd West Indian Regiment and in the 1873–74 Ashanti campaign in the Gold Coast of West Africa.

The years from 1840 to 1909 were chosen because dramatic, even revolutionary, changes in Western medicine and to a lesser extent in European imperialism occurred during that time. Medicine moved from humoral to bacteriological explanations of disease, surgery from septic to antiseptic procedures.<sup>5</sup> British imperialism changed from an essentially *laissez-faire* and privately funded search for colonies of profit characteristic of the early 1800s to a more systematic and nationalistic pursuit of colonies, preferably profitable but unprofitable if need be, common by the early 1900s. The scramble for Africa, its beginnings usually associated with the 1880s, often typified this new phase of European imperialism.<sup>6</sup>

Of the total of 3,639 army surgeons commissioned between 1840 and 1909, 418 or 11.5 per cent saw service in the West Indies or in West Africa (see Table 1). The first decade of the 1840s and the final decade of 1900–1909, however, contributed 195 of the 418, over 46 per cent of all surgeons during the seven decades. The 1870s and 1880s were the two decades which contributed the lowest number with a total of only 45 surgeons (over 10 per cent of the 418) having West Indian/West African experience (hereafter often WI/WA). During four years of these decades no surgeons were commissioned.<sup>7</sup> The two decades of

in the tropics between 1815 and 1914", p. xiii. Specifically, he analyses British and French soldiers in mainly the West Indies, Algeria, and the Madras Presidency of India. One conclusion is that between the early 1800s and 1914, "the typical death rate of European soldiers in the tropics dropped by 90 per cent", p. xvii. While Curtin focuses on enlisted men and says little about mortality among their medical officers, this study tends to confirm, for army doctors with tropical service, a significant decline in mortality rates from 1840 to 1909.

<sup>&</sup>lt;sup>4</sup> Commissioned officers in the medical services of the British army, 1660–1960, 2 vols., Historical Monograph Series no. 14, London, Wellcome Historical Medical Library, 1968. Vol. 1 contains Alfred Peterkin, A list of commissioned medical officers of the army, 1660–1727, and William Johnston, Roll of commissioned officers in the medical service of the British army, 20 June 1727 to 23 June 1898. Vol. 2 consists of Robert Drew, Roll of officers in the Royal Army Medical Corps, 1898–1960.

<sup>&</sup>lt;sup>5</sup> S. Squire Sprigge, *Medicine and the public*, London, Heinemann, 1905, p. 13, and Curtin, op. cit., note 3 above, pp. xiii, 1, 80, 104.

<sup>&</sup>lt;sup>6</sup> No generalization about imperialism, even when qualified by nation, can be accurate. British ventures in Asia, for example, were different from those in Africa and from those in the West Indies. Christopher A. Bayly, *Imperial meridian: the British empire and the world, 1780–1830*, London, Longman, 1989, argues for the growth of a "Second British Empire", with emphasis on the formative years of 1783 to 1830 and on the positive role of government therein. While not ignoring the importance of private business in colonial ventures of the time, he thinks it has received undue emphasis.

<sup>&</sup>lt;sup>7</sup> Parliamentary Papers (hereafter PP), 'Special report from the Select Committee on the Medical Act (1858) Amendment (No. 3) Bill', Cd 320, 1879, p. 274, and Neil Cantlie, A history of the army medical department, 2 vols, Edinburgh, Churchill Livingstone, 1974, vol. 2, pp. 268, 274, 284. The critical 1870s decade was primarily responsible for the small percentage of army surgeons who served in the WI/WA area. The total number commissioned in that decade was only 220, mainly because of recruiting difficulties but also because surplus surgeons remained from the two earlier decades, especially that of the Crimean War. See Dirom G. Crawford, A history of the Indian Medical Service, 1600–1913, 2 vols, London, W. Thacker, 1914, vol. 2, pp. 295, 309.

 $Table\ I$  British army surgeons and those with west indian or west african service by decade of commission

Decade	Number Commissioned	Number with WI/WA Service	Percentage with WI/WA Service
1840s	419	75	17.9
1850s	911	66ª	7.2
1860s	544	71	13.0
1870s <sup>b</sup>	220	7	3.2
1880s <sup>c</sup>	597	38	6.4
1890s	341	41	12.0
1900-1909	607	120	19.8
Total	3639	418	11.5

(Sources: Johnston and Drew rolls.)

the 1840s and 1900–1909 sent 19 per cent of the 1,026 surgeons commissioned therein to the WI/WA area, while the remaining five decades from 1850 to 1899 sent only 8 per cent of the 2,613 commissioned during the period.

The entries were analysed by decade of commission from varied perspectives. Each decade provided a sufficient number of surgeons for generalization—with the exception of the 1870s. Only 7 of its 220 officers served in the WI/WA area. For that reason the 1870s data are usually combined with that for the 1880s. The entries for 1898 and 1899 are sometimes considered separately or combined with those of 1900–1909. Although 41 of the 341 officers commissioned in the 1890s served in the WI/WA area, 32 of them received their commissions during these final two years. In terms of their characteristics they represented the vanguard of a new breed of army surgeon that would appear in the early 1900s. They should therefore not always be included with the nine officers commissioned between 1890 and 1897. The professional and military benefits derived from the establishment of the Royal Army Medical Corps (RAMC) in 1898 and those from the 1902 royal warrant which embodied Boer War medical experience helped to attract a better qualified surgeon thereafter.<sup>8</sup>

The biographical entries in the rolls of Johnston and Drew vary in the amount of information (Drew generally has more), in categories and arrangement of information, and in abbreviations to convey the information. A basic difference exists in coverage. Johnston included all medical officers who served on full pay from 20 June 1727 to 23 June 1898; Drew included, to avoid excessive length, only those who held permanent regular commissions from 27 July 1898 to 19 August 1960. Johnston reportedly worked for over ten years, with assistance from others, in collecting his information—mainly from the British Museum and the Public Record Office. He died in 1914 before the roll was

<sup>&</sup>lt;sup>a</sup> Two West Africans were also commissioned in 1859 but are not included in this study.

<sup>&</sup>lt;sup>b</sup> There were no commissions in 1876 and 1879. <sup>c</sup> There were no commissions in 1888 and 1889.

The decision in 1870 to stop posting MOs to regiments, except for the Household Cavalry and Guards, may also have lessened the appeal of army medicine. The 1873 warrant's unification of extant regimental MOs with staff MOs (all now required to wear the same uniform), along with its other unpopular provisions, definitely reduced the number of candidates. Cantlie, op. cit., vol. 2, pp. 273–4.

<sup>&</sup>lt;sup>8</sup> Lankford, op. cit., note 2 above, chap. 6, especially pp. 260–1, 265-8; Cantlie, op. cit., note 7 above, vol. 2, pp. 287–9, 354–60, especially pp. 358–9; and Johnston, op. cit., note 4 above, pp. lix-lx.

completed and others, with assistance from his wife, saw it through to publication in 1917. Drew's roll is based mainly upon research, by various individuals, in corps records grouped by regiment at the RAMC, supplemented by information from individual service files and from medical officers on active duty in late 1966. With so many variables and imponderables in their compilation, not to mention those of publication, the rolls obviously are not perfect. They do provide, however, the best and most complete data readily available for a prosopographical study of British army surgeons with West Indian/West African service.

#### THE CONTEXT

To understand this special group of army surgeons, a limited knowledge of British civilian medicine is required. The relations between civilian and military medicine are also important. Finally, the role of the AMD within the army is significant. A brief consideration of these will provide insight into the professional environment of army surgeons with WI/WA service.

Jeanne Peterson begins her fascinating study of the medical profession in the mid-Victorian period by asserting that "reverence for medical science and medical men, a commonplace of the twentieth century, had no part in the thinking of aristocrats or ordinary folk a century earlier". Prior to the 1858 Medical Act the organized structure of civilian medicine was "in a state of near-chaos". There were nineteen licensing bodies in the United Kingdom—including the archbishop of Canterbury. As a result some doctors had university degrees, some had only licences, and some had none of these. "Quacks, 'empirics,' and drug peddlers practiced freely with no legal sanctions against them. . . . "11

<sup>9</sup> M. Jeanne Peterson, *The medical profession in mid-Victorian London*, Berkeley, University of California Press, 1978, p. 1. See also Charles Newman, *The evolution of medical education in the nineteenth century*, London, Oxford University Press, 1957, pp. 138–40, 173; Roy Porter, *Health for sale: quackery in England*, 1660–1850, Manchester University Press, 1989, pp. 31–2; S. Squire Sprigge, *Physic and fiction*, London, Hodder & Stoughton, 1921, p. 20; and Sprigge, op. cit., note 5 above, pp. 91, 251.

<sup>10</sup> Peterson, ibid., p. 5. Newman, ibid., pp. 137, 172, also refers to the "state of anarchy in the profession" in the late 1840s; again in the early 1850s, citing Palmerston's view, he describes the medical profession as "a labyrinth and a chaos". See also Christopher Lloyd and Jack L. S. Coulter, *Medicine and the navy*, 1200–1900, 4 vols, Edinburgh, E. & S. Livingstone, 1957–63, vol. 4, p. 24, who tell us that of 33,339 practising doctors in 1858, 21,531 (some 64.5 per cent) were found to have no academic qualifications in medicine.

11 Peterson, op. cit., note 9 above, p. 5. Testimony and evidence given to several committees of parliament clearly confirm these generalizations for the UK. See *PP*, 'Report from the Select Committee on Medical Education: Part I, Royal College of Physicians', Cd 602–I, 1834, p. 168; *PP*, 'Report from the Select Committee on Medical Registration', Cd 620, 1847, pp. 107, 114–15, 126, 140, 161–3, 172, 174; and *PP*, 'Third Report from the Select Committee on Medical Registration and Medical Law Amendment', Cd 702, 1848, pp. 282–3, 287. See also, Frederick F. Cartwright, *A social history of medicine*, New York, Longman, 1977, p. 53.

For a general study of quackery in England from 1660 to 1850, see Porter, op. cit., note 9 above, one of whose conclusions on p. 187 is: "Thus quackery, rather like prostitution, was permitted to thrive as a necessary evil, a sop to human weakness." A friendlier judgement of the "irregular" medical practitioner, "quacks" being included under this designation, is found in Irvine Loudon, Medical care and the general practitioner, 1750–1850, Oxford, Clarendon Press, 1986, chap. 1 and pp. 208–14. See also Newman, op. cit., note 9 above, pp. 135, 138–9, 150–1, 170–1, 191; Jeffrey L. Berlant, Profession and monopoly: a study of medicine in the United States and Great Britain, Berkeley, University of California Press, 1975, 158–9; Sprigge, op. cit., note 5 above, chap. 6, especially pp. 68, 72, and 263–4, where he decries the continuing prevalence of quackery around 1900.

Conditions were similarly chaotic and unregulated in the U.S. at the time. See John Duffy, *The healers: the rise of the medical establishment*, New York, McGraw-Hill, 1976, pp. 177, 179, 260; John S. Haller, Jr, *American medicine in transition*, 1840–1910, Urbana, University of Illinois Press, 1981, pp. vii-viii, 192, 218–19; and Kenneth M. Ludmerer, *Learning to heal: the development of American medical education*, New York, Basic Books, 1985, pp. 13, 48.

As a result of the 1858 Act—the sixteenth bill to reform medical education and licensing introduced in Parliament since 1840 and the only one to be passed—a "qualified general practitioner" was now defined. A General Medical Council (GMC) was established, with branches in England/Wales, Scotland, and Ireland. Scottish and Irish medical degrees were at last equated with English degrees. The GMC was to publish an annual register of qualified doctors. The Act did not prevent the unlicensed practice of medicine; it merely prohibited government employment to those without registered licences. It also prohibited the use of titles, such as physician, surgeon, or apothecary, to those who lacked licences. Is

As of 1858 civilian medicine in the UK was too heterogeneous in education and practice to be considered a profession in a modern sense. Both laymen and medical men judged a practitioner "more by who he was than what he did". Parliament's failure to grant licensed medical men a monopoly over the practice of medicine and the care of the sick suggests that... legislators put little faith in scientific expertise and in the medical license as proof of that expertise". Sir Benjamin Brodie, former president of the Royal College of Surgeons, had expressed this idea in 1861: "if the arts of medicine and surgery had never been invented, by far the greater number of those who suffer from bodily illness would have recovered". Sir Benjamin's use of the word "arts" is significant and reflected a commonly held view of the time. 17

Civilian medicine, for all of its educational and scientific inadequacies, was extremely rank-conscious.<sup>18</sup> Physicians were the elite, surgeons second, and apothecaries

<sup>&</sup>lt;sup>12</sup> Newman, op. cit., note 9 above, pp. 186–93; Berlant, ibid., pp. 153–4, 158; Peterson, op. cit., note 9 above, pp. 30, 35; and Lankford, op. cit., note 2 above, pp. 15–16. Newman counts the bill as the sixteenth, Peterson as the seventeenth.

<sup>&</sup>lt;sup>13</sup> Berlant, op. cit., note 11 above, pp. 156, 159, 163; Newman, op. cit., note 9 above, pp. 227–8; Sprigge, op. cit., note 5 above, pp. 19–21, 73–4; Loudon, op. cit., note 11 above, pp. 297–301; Peterson, op. cit., note 9 above, p. 36; Cartwright, op. cit., note 11 above, pp. 56–7; and *PP*, Cd 320, 1879, op. cit., note 7 above, p. 258.

<sup>14</sup> Peterson, op. cit., note 9 above, pp. 38–9. There are varied definitions of "profession"—its meaning changed even during the 1800s—and Berlant, op. cit., note 11 above, pp. 145–53, 174–6, has no difficulty in recognizing a medical profession in the early 1800s formed from the pre-existing "professional groups", physicians, surgeons, and apothecaries. Newman, op. cit., note 9 above, who begins chapter 1 with the subheading 'The medical profession in 1800', would also disagree with Peterson's argument. Sprigge, op. cit., note 5 above, p. 16, however, asserts that "the definite foundation of the [modern] medical profession" came with the passage of the 1858 Act. Cartwright, op. cit., note 11 above, p. 57, agrees with this position, as does Loudon, op. cit., note 11 above, pp. 3, 5–6, so far as the "main structure" of the modern profession is concerned. See also Cantlie, op. cit., note 7 above, vol. 1, p. 430, and Cartwright, op. cit., note 11 above, pp. 50–1.

<sup>&</sup>lt;sup>15</sup> Peterson, op. cit., note 9 above, p. 36. Sprigge, op. cit., note 5 above, p. 267, also comments that parliament was generally reluctant to give "the appearance of granting a monopoly to any class", medical or other. See also *PP*, Cd 320, 1879, op. cit., note 7 above, p. 283. This suspicion of doctors persisted well into the 1900s. Shaw probably expressed the sentiments of many when he wrote that "the medical profession has not a high character; it has an infamous character"—and added "Treat persons who profess to be able to cure disease as you treat fortune tellers", preface to *The doctor's dilemma*, in *Bernard Shaw: complete plays with prefaces*, 6 vols, New York, Dodd, Mead, 1963, vol. 1, pp. 2, 78.

<sup>&</sup>lt;sup>16</sup> Peterson, op. cit., note 9 above, p. 130; *PP*, Cd 320, 1879, op. cit., note 7 above, pp. 50, 82–3, 145; and Duffy, op. cit., note 11 above, p. 322.

<sup>&</sup>lt;sup>17</sup> Newman, op. cit., note 9 above, pp. 226–7, briefly discusses medicine as art and science and is critical of the increasing emphasis on science in the late 1800s. Sprigge, *Medicine and the public*, see note 5 above, however, repeatedly endorses this emphasis on science, e.g., pp. 13–14, 86–7, 104, 166, 168, 204–6; as he also does in *Physic and fiction*, pp. 9–11, see note 9 above.

<sup>&</sup>lt;sup>18</sup> For the importance of a liberal education, see Peterson, op. cit., note 9 above, pp. 49–52, 56–60, but especially p. 58 where the editor of the *British Medical Journal* is cited as arguing in 1884 that a liberal education would raise a doctor's "status in the eyes of the lay world" and would enable him to enjoy "not only more social privileges but also a higher fee". See also Newman, op. cit., note 9 above, pp. 50–5, especially p. 51, where he says "To some

third.<sup>19</sup> Almost all civilian medical men, however, considered themselves superior to military medical men. "The services had the reputation for not attracting the 'ablest and best students'".<sup>20</sup> The "ablest and best" were usually English students, not Scottish or Irish students whose local degrees were held to be inferior to English degrees until 1858—and even then became comparable only in a legal sense for some.

Despite this disdain and condescension toward military medicine, some doctors were forced into it because of their inability to establish a civilian practice. The British army and navy offered opportunities for a steady salary, as did the East India Company and the Indian army. Prior to 1858 a diploma from the Royal College of Surgeons, or its equivalent from Edinburgh or Dublin, permitted entry into the army medical service. With the 1858 warrant reforms, candidates had to take competitive examinations and have qualifications equal to those of a civilian beginning practice, that is, a licentiate from the Royal College of Physicians plus the RCS diploma—or the equivalent of these.<sup>21</sup> These principles of selection were repeated in the 1867 warrant. Once commissioned and after ten years of service, some were able to receive a gratuity or retire on half pay and then begin the delayed civilian practice.<sup>22</sup> Interestingly, among the fellows of the Royal College of Surgeons, the elite among surgeons, who had practised prior to 1890, almost 17 per cent had some military service.<sup>23</sup> Despite the blending of civilian and military medicine by a minority, a general antipathy toward military medicine persisted throughout the second half of the 1800s. Whereas this was strongest among English medical men during the 1850s and 1860s, by the 1890s it had also spread to many medical schools in Ireland and Scotland. The result was a virtual boycott of the AMD by medical schools.<sup>24</sup>

The army surgeon, assumed inferior and treated accordingly by his civilian counterpart, found himself also disdained by the army's combat officer. If civilian medicine was struggling to achieve recognition as a distinguished profession from British society, and

extent the pressure of a classical education is 'snob' value. It makes its possessor feel superior, and it makes others think him superior". John A. Shepherd, *Spencer Wells: the life and work of a Victorian surgeon*, Edinburgh, E. & S. Livingstone, 1965, pp. 2–3, 120, and Sprigge, op. cit., note 9 above, pp. 100–1, also confirm this emphasis.

<sup>&</sup>lt;sup>19</sup> Sir Ralph Bloomfield Bonington, a physician to the wealthy, refers to an eminent surgeon acquaintance in Shaw's *The doctor's dilemma* with these words: "Walpole has no intellect. A mere surgeon. Wonderful operator; but, after all, what is operating? Only manual labour", *Bernard Shaw*, op. cit., note 15 above, vol. 1, p. 108. Sprigge, op. cit., note 5 above, p. 253, refers to the continuing "jealousy in the ranks", around 1905, long after the rise of the general practitioner, because there were over twenty ways to enter the medical profession, some more prestigious than others. Loudon, op. cit., note 11 above, pp. 24–5, 28, 189–90, on the other hand, asserts that the tripartite division of medicine was not the reality, in "theory and practice", that official legal and government papers indicate, even as early as the second half of the 1700s. See also Newman, op. cit., note 9 above, pp. 1–4, and Shepherd, op. cit., note 18 above, pp. 2–3.

<sup>&</sup>lt;sup>20</sup> Richard Quain, *Observations on medical education*, London, Walton & Maberley, 1865, p. 33, as quoted in Peterson, op. cit., note 9 above, p. 125. See also Cantlie, op. cit., note 7 above., vol. 2, pp. 268, 270; Sprigge, op. cit., note 5 above, pp. 87–8, 226–8; and John Shepherd, *The Crimean doctors: a history of the British medical services in the Crimean war*, 2 vols, Liverpool University Press, 1991, vol. 1, p. 13.

<sup>&</sup>lt;sup>21</sup> Cantlie, op. cit., note 7 above, vol. 1, p. 430, and vol. 2, pp. 202, 270; and Sprigge, op. cit., note 5 above, p. 84. <sup>22</sup> Crawford, op. cit., note 7 above, vol. 2, pp. 364–8, compares military and civilian medical opportunities for Britons, to the advantage of the military.

<sup>&</sup>lt;sup>23</sup> Dr Watson, Sherlock Holmes's companion, is a fictional example of the retired army surgeon. Peterson, op. cit., note 9 above, p. 124. Crawford, op. cit., note 7 above, vol. 2, p. 251, states that of 227 fellows admitted to the Royal College of Surgeons in 1844, 83 were from the military medical services (5 Guards, 23 AMD, 26 RN, and 29 IMS); Shepherd, op. cit., note 18 above, especially pp. 23, 34, provides details on one such successful transition from military to civilian medicine.

<sup>&</sup>lt;sup>24</sup> Lankford, op. cit., note 2 above, p. 246; Cantlie, op. cit., note 7 above, vol. 2, pp. 268, 270, 274, 280, 284; and Sprigge, op. cit., note 5 above, pp. 91,104, 109, 226.

finding the task difficult, military medicine found "the feudal affectations and aristocratic connections of the army" and its bureaucracy almost totally inimical to any claims of respectability. Throughout most of the 1840–1899 period, the army's regular officers "remained skeptical of both curative and preventive medicine and, by inference from the low value placed upon the health of the soldier, minimized the doctor's importance". With the establishment of the RAMC in 1898 and the 1902 changes following the Boer War the status of army military medicine and its doctors began to improve appreciably. The status of the status of army military medicine and its doctors began to improve appreciably.

Sir Garnet Wolseley, often credited with recreating the British army during the 1880s and 1890s and with extensive service in regions of Africa (including West Africa), probably typified the regular officer's view of the medical officer (MO). He held army surgeons in "a contempt worthy of his Crimean predecessors". 28 In The soldier's pocket book, published privately in 1869 but with semi-official weight, and which went through many editions, he minimized the value of the AMD to the army, with respect to both its sanitary measures and the quality of its MOs. The Army Medical School (AMS), established in 1860 at Ft Pitt and moved to Netley in 1863, he considered a drain on the treasury, forgetting or ignoring the fact that from its establishment the AMS had regularly trained MOs for Indian service and even over two hundred naval surgeons from 1875 to 1881.<sup>29</sup> The irony of the army surgeon's position was that civilian doctors denigrated him because he was in the military, while regular combat officers refused to recognize him as a genuine officer because, really, he was a civilian on loan to the military—and a not very reputable one at that. "Medical men were excluded from the officers' mess and in other respects treated as less than military 'gentlemen'" well into the 1880s and beyond by combat officers.<sup>30</sup>

The army surgeon thus was doubly a second-class person—first with respect to his civilian colleague and then with respect to his "brother" officer. The reasons for this were manifold and included institutional, educational, ethnic, and religious elements. Underlying and permeating most of the reasons was the sense of class consciousness which rebelled at the thought that commoners with ability and competence could ever equal the achievements of gentlemen—in any field of endeavour.

Medical men during the 1800s, whether civilian or military, rarely came from the upper social ranks, whereas prior to 1910 almost no officer candidates entering Woolwich or

<sup>&</sup>lt;sup>25</sup> Lankford, op. cit., note 2 above, pp. 11 and also 6–7. See also Cantlie, op. cit., note 7 above, vol. 2, p. 269; Shepherd, op. cit., note 20 above, vol. 1, pp. 10–11, vol. 2, p. 596; and Sprigge, op. cit., note 5 above p. 86.

<sup>26</sup> Lankford, op. cit., note 2 above, p. 12. Sprigge, op. cit., note 5 above, p. 86, asserts that as late as 1900 the

War Office, Admiralty, and Government of India were all being criticized for "their unsympathetic attitude toward their medical services". See also Cantlie, op. cit., note 7 above, vol. 2, pp. 276, 285–7.

<sup>&</sup>lt;sup>27</sup> Sprigge, op. cit., note 5 above, pp. 92-6, 285-9. The RAMC reforms also led to better conditions for surgeons in the navy and the Indian Medical Service.

<sup>&</sup>lt;sup>28</sup> Lankford, op. cit., note 2 above, p. 224. See also, Sprigge, op. cit., note 5 above, p. 89.

<sup>&</sup>lt;sup>29</sup> Dictionary of national biography, 1912–1921, eds H. W. C. Davis and J. R. H. Weaver, Oxford University Press, London, Humphrey Milford, 1927; Cantlie, op. cit., note 7 above, vol. 2, pp. 286–7, 412; and Lankford, op. cit., note 2 above, p. 224. Criticisms of the army medical service arising from the Crimean War experience had led the government's Sanitary Commission, influenced by Florence Nightingale, to recommend the establishment of an army medical school with, initially, chairs in medicine, surgery, hygiene and pathology. See Shepherd, op. cit., note 20 above, vol. 2, pp. 592–7; and Cantlie, op. cit., note 7 above, vol. 2, pp. 200–1, 217–18, 219–20, 224.

<sup>&</sup>lt;sup>30</sup> Peterson, op. cit., note 9 above, p. 125. See also Cantlie, op. cit., note 7 above, vol. 1, p. 4 and vol. 2, pp. 267–8, 284–5; Sprigge, op. cit., note 5 above, pp. 88–9, 226–7; and Loudon, op. cit., note 11 above, p. 200.

Sandhurst were from "lower middle-class backgrounds". <sup>31</sup> Of Sandhurst cadets from 1810 to 1869, almost all were sons of gentlemen, military officers, or professional men. From 1880 to 1939 over 85 per cent of all combat officers were drawn from these same elite groups. <sup>32</sup> If only the sons of gentlemen are considered for the 1810–1869 period, almost 34 per cent of the cadets came from this group. A study of physicians and surgeons during the 1800s indicates that only 4 per cent and just over 1 per cent, respectively, were sons of gentlemen. <sup>33</sup> This lower social rank was also reflected in the education of medical men. Of 756 fellows of the Royal College of Physicians, the elite of the medical profession, only 101 (some 13 per cent) had attended one of the public schools during the 1800–1889 period. Among 2,452 fellows of the Royal College of Surgeons, the elite among surgeons, only 51 (some 2 per cent) had been similarly educated. <sup>34</sup>

Given their inferior position within the medical profession, such as it was at the time, and given their non-recognition as true officers within the army, it is not surprising that "concern about their insecure and marginal position" caused hypersensitivity among some army surgeons to real or imagined slights.<sup>35</sup> By the 1890s the AMD was in "a depressed, demoralized state".<sup>36</sup> Army surgeons then were not only not respected but they received fewer and often inferior resources with which to do more work. Equipment was often obsolescent, drugs such as chloroform often unreliable, and 864 doctors were expected to care for an army about the size of that in 1860 when 1,119 doctors were available for medical duties.<sup>37</sup>

#### THE EVALUATION

Were the army surgeons assigned to the West Indies and to West Affrica "commonly... officers of proven mediocrity", as Lankford asserts?<sup>38</sup> Did these medical officers constitute a lower, perhaps the lowest, echelon of professional competence in military medicine? Were they markedly inferior to their fellow MOs assigned to other regions in the British empire?<sup>39</sup> What were the characteristics of the 418 officers stationed in the WI/WA area

<sup>&</sup>lt;sup>31</sup> Peterson, op. cit., note 9 above, p. 199. Sprigge, op. cit., note 5 above, p. 273, refers to medical students being drawn in 1905 from "the middle or lower class". Loudon, op. cit., note 11 above, pp. 34, 199–200, 202–3, 205–6, while essentially agreeing with Peterson on the social background of medical practitioners, suggests that general practitioners in market towns often enjoyed more social prestige by the mid-1880s than those practising in London and other cities—though even these GPs were sharply criticized by many.

<sup>&</sup>lt;sup>32</sup> Lankford, op. cit., note 2 above, pp. 224–5.

<sup>&</sup>lt;sup>33</sup> Peterson, op. cit., note 9 above, p. 199.

<sup>34</sup> Ibid., p. 49.

<sup>35</sup> Lankford, op. cit., note 2 above, p. 228. Even the War Office reflected similar sensitivity in 1890 when it castigated the General Medical Board for failing to "insist upon a more efficient preliminary examination" of the student's general education prior to his beginning medical education. This rebuke was prompted, the War Office said, by the Secretary of State's complaints about the "manifest deficiency in Orthography" common among the younger army medical officers. Newman, op. cit., note 9 above, pp. 198–9.

<sup>&</sup>lt;sup>36</sup> Lankford, op. cit., note 2 above, p. 239. Alfred A. Woodhull, *Observations upon the medical department of the British army, made in 1891*, St Louis, Buxton & Skinner Stationery Co., 1894, was more optimistic early in this decade and recommended that the U.S. medical corps adopt some of the British practices; see especially pp. 144 and 155–6.

<sup>&</sup>lt;sup>37</sup> Lankford, op. cit., note 2 above, p. 239.

<sup>&</sup>lt;sup>38</sup> Ibid., p. 130.

<sup>&</sup>lt;sup>39</sup> Navy surgeons were convinced, at least until the 1880s, that they occupied the lowest rank in military medicine. See Lloyd and Coulter, op. cit., note 10 above, vol. 4, pp. 5, 8, 11–22, 15–16, 18–19, 29–30, and Cantlie, op. cit., note 7 above, vol. 2, p. 224. Navy surgeons, for example, could not dine with line officers in the wardroom until 1855 and it was not until 1866 that they were assigned separate cabins—prior to these years they had lived and eaten with the midshipmen.

Table 2

BRITISH ARMY SURGEONS WITH WEST INDIAN OR WEST AFRICAN SERVICE:
ETHNIC ORIGIN BY PLACE OF BIRTH BY DECADE (PERCENTAGE DISTRIBUTION)

Ireland	Scotland	England	
48.7	10.3	38.5	
57.6	13.6	22.0	
54.3	22.9	17.1	
$(51.4)^{b}$	$(10.5)^{b}$	$(28.7)^{b}$	
53.8	15.4	26.9	
$(34.8)^{b}$	$(9.7)^{b}$	$(39.3)^{b}$	
40.0	5.0	40.0	
$(32.8)^{b}$	$(8.3)^{b}$	$(43.0)^{b}$	
34.2	10.5	39.5	
$(29.1)^{c}$	$(12.9)^{c}$	$(43.6)^{c}$	
45.0	12.1	32.6	
	48.7 57.6 54.3 (51.4) <sup>b</sup> 53.8 (34.8) <sup>b</sup> 40.0 (32.8) <sup>b</sup> 34.2 (29.1) <sup>c</sup>	48.7 10.3  57.6 13.6  54.3 22.9 (51.4) <sup>b</sup> (10.5) <sup>b</sup> 53.8 15.4 (34.8) <sup>b</sup> (9.7) <sup>b</sup> 40.0 5.0 (32.8) <sup>b</sup> (8.3) <sup>b</sup> 34.2 10.5 (29.1) <sup>c</sup> (12.9) <sup>c</sup>	48.7 10.3 38.5  57.6 13.6 22.0  54.3 22.9 17.1 (51.4) <sup>b</sup> (10.5) <sup>b</sup> (28.7) <sup>b</sup> 53.8 15.4 26.9 (34.8) <sup>b</sup> (9.7) <sup>b</sup> (39.3) <sup>b</sup> 40.0 5.0 40.0 (32.8) <sup>b</sup> (8.3) <sup>b</sup> (43.0) <sup>b</sup> 34.2 10.5 39.5 (29.1) <sup>c</sup> (12.9) <sup>c</sup> (43.6) <sup>c</sup>

(Sources: Johnston and Drew rolls; Lankford, p. 308).

Note: Percentages do not total 100 because those born elsewhere not included.

during 1840–1909? Where were they born? How old were they at time of commission? What medical qualifications did they possess when commissioned? How long did they serve? How did they leave army service? How old were they at the time of death? Where did they die? Answers to these and other questions should provide a clearer picture of the army surgeon with WI/WA service and his characteristics.

Birthplaces are given for 313 officers (75 per cent of the total sample of 418) from 1840 to 1909 (see Table 2).<sup>40</sup> Those born in Ireland made up 45 per cent of all WI/WA surgeons during the period. The percentage was even higher, almost 52 per cent, for 1850–1899. The comparable percentages for those born in Scotland were 12 and almost 14. Well over half of all army surgeons were Irishmen or Scotsmen from the 1840s to the 1880s, and even in the remaining two decades their combined percentage was around 45. Those born in England were well represented during the first and last decades (over 38 per cent and over 39 per cent), but during the 1850–1899 period they constituted only some 26 per cent of all army surgeons with WI/WA service, about half the number of Irish surgeons alone during the time. When the percentages in Table 2 for the entire AMD from 1860 to 1914 are compared with those for the WI/WA sample, it is obvious that the Irish and the Scots

<sup>&</sup>lt;sup>a</sup> Number for whom birth place recorded/percentage of WI/WA surgeons commissioned in decade for whom birth place known.

<sup>&</sup>lt;sup>b</sup> Lankford's data for all army surgeons in 1860s, 1870s/1880s, and 1890s.

c Lankford's data for 1900-1914.

<sup>&</sup>lt;sup>40</sup> Given the nature of the data, percentages will ordinarily be rounded to whole numbers in the text, with appropriate adjectives. Unfortunately, the human element will tend to be obscured by the tabulations and percentages. Thomas Parr, for example, commissioned on 21 July 1846, was born in the infantry barracks in Canterbury on 15 July 1819 and later served in both the 2nd WIR and the 3rd WIR. He served many years, retiring in 1872 with the honorary rank of deputy inspector general of hospitals. Another surgeon-to-be, Francis Hyde Forshall, not in the WI/WA sample, was born in the British Museum on 26 April 1833.

together were over-represented (77 to 62 per cent in the 1860s and 45 to 41 per cent in the 1890s) while the English were under-represented.<sup>41</sup>

How old were these men when they were commissioned? Most medical students during the mid-Victorian decades completed their studies when 21 or 22 years of age. 42 The age at time of licensing increased after 1858, as additional courses were introduced by medical schools, until it was almost 25 years. From the 1840s through the 1880s, the average age at commissioning for WI/WA surgeons remained remarkably steady (see Table 3), varying from 24.6 in the 1840s to 24.0 in the 1850s and 1860s to 24.8 for the 1870s/1880s. With the passage of the 1858 Medical Act and the establishment of the Army Medical School (AMS) in 1860, an increase in average commissioning age might have been expected. It is not found among the WI/WA surgeons, however, though the 1858 act had recommended four years of study and the AMS was, in effect, a postgraduate school that required a medical licence of all entrants. 43 Not until the 1890s would the age at commissioning rise to 25.6 and remain there in the following decade. 44 It is possible that WI/WA surgeons were better prepared or had more experience in the pre-AMS days than commonly thought, for they entered the service at about the same age as the post-AMS graduates who had finished the four-month Netley course. Not until the 1890s, when multiple degrees and specializations became common, did the average exceed 25 years at commissioning.

How qualified were these new officers to undertake the medical care of soldiers? How many of them held degrees at the time of commission? What kinds of degree were in hand? From what universities and medical schools had they been secured? The data indicate a slow but steady increase in the extent of medical preparation (see Table 4). Although almost 50 per cent of the surgeons of the 1840s held no recorded degrees, over 50 per cent did hold single or multiple degrees. The 1850s data seem anomalous because of the number of surgeons commissioned and rushed to the Crimea. With the 1860s the essential 50/50 pattern is reasserted and improvement begins with the decades of the 1870s/1880s. By the 1890s less than 32 per cent of WI/WA army surgeons lacked recorded degrees (all had licences after 1858, of course, and thus had some medical education), while 22 per cent

<sup>&</sup>lt;sup>41</sup> The navy likewise relied upon non-English ethnic groups. In 1870–1880, for example, of 482 recruits, the Irish constituted some 52 per cent, the Scots 26.5, and the English 21.5, Lloyd and Coulter, op. cit., note 10 above, vol. 4, p. 20. For an analysis of ethnicity in military medicine, see Nelson D. Lankford, 'The Victorian medical profession and military practice: army doctors and national origins', *Bull. Hist. Med.*, 1980, **58**: 511–28.

<sup>&</sup>lt;sup>42</sup> Peterson, op.cit., note 9 above, p. 85.

<sup>&</sup>lt;sup>43</sup> As of 1860, entrance into the AMS was regularly by competitive examination, but there were exceptions to this procedure over the decades. Because of a shortage of army surgeons in the mid-1860s, for example, Sir James Gibson, the director general, advertised for recruits for home service only, at 10 shillings per day, with the stipulation that there would be no examination. Cantlie discusses this and other variations in his *Army medical department*, see note 7 above, especially vol. 2, pp. 268, 280, 286. Woodhull, op. cit., note 36 above, p. 2, also mentions selection by the secretary of war, upon recommendation of a public medical school, as an alternate means of admission to the AMS. See also Johnston, op. cit., note 4 above, p. lv.

<sup>&</sup>lt;sup>44</sup> James Jameson (no. 5641) of Scotland was the youngest WI/WA surgeon at the time of his commission on 9 November 1857, being only three months beyond his twentieth birthday. His career was long and distinguished. Gordon Hammond (no. 6107), another Scot, was the oldest at time of commission on 16 October 1863, being 35 years and 4 months of age. His career lasted less than three years for he died at Bathurst, Gambia, on 18 August 1866.

<sup>&</sup>lt;sup>45</sup> Although not strictly comparable to Table 4's data, in a random sample of 2,000 provincial GPs in the 1847 *Medical Directory*, those who held degrees *and* professional memberships totalled 853 or 62 per cent. Loudon, op. cit., note 11 above, Table 23, p. 219.

Table 3
BRITISH ARMY SURGEONS WITH WEST INDIAN OR WEST AFRICAN SERVICE: AVERAGE AGE AND AVERAGE YEARS OF SERVICE AND LIFE FROM COMMISSION, BY RETIREMENT AND DEATH, BY DECADE

		Retired		Died		Total	Total
	Commission		Service		Service	Service	Life
Decade	Age	Age	Years	Age	Years	Years	Years
(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)
1840s	24.6	48.5	23.5	49.9	11.0	15.1	22.3
(75)	(57)	(18)	(22)	(51)	(45)	(67)	(67)
1850s	24.0	47.5	23.3	49.1	13.6	18.2	23.4
(66)	(60)	(29)	(30)	(55)	(34)	(64)	(61)
1860s	24.0	45.8	23.3	50.9	16.1	20.3	25.3
(71)	(68)	(40)	(39)	(50)	(28)	(67)	(53)
1870s/1880s	24.8	47.2	21.0	40.0	11.0	17.6	14.5
(45)	(45)	(23)	(24)	(18)	(12)	(36)	(18)
1890s	25.6	50.8	25.9	73.9	29.9	26.2	48.7
(41)	(41)	(29)	(29)	(29)	(3)	(32)	(29)
1900-1909	25.6	50.6	24.9	67.0	18.2	24.0	41.4
(120)	(120)	(102)	(102)	(104)	(16)	(118)	(104)
1840-1897 av	re. 24.4	46.9	22.7	48.9	13.0	17.8	22.7
(266)	(239)	(112)	(117)	(266)	(120)	(237)	(200)
1898-1909 av	e. 25.6	50.8	25.3	68.7	19.8	24.7	43.1
(152)	(152)	(129)	(129)	(132)	(18)	(147)	(132)

(Sources: Johnston and Drew rolls.)

held a single degree and over 46 per cent had multiple degrees or specializations. <sup>46</sup> By the initial decade of the 1900s over 78 per cent had single or multiple degrees or specializations. <sup>47</sup> Although the dates for degrees are not always given, from the 1850s to the 1890s some 80 per cent of those with recorded years had the degree in hand at the time of commissioning.

The MD was the most popular degree, along with the MB, from the 1840s to the 1880s (see Table 5). Of degrees in the 1840s, 72 per cent were MDs and 14 per cent were MBs, in total 86 per cent of the 43 degrees held by the WI/WA army surgeons of that decade. For the 1850s the total of the two degrees was 87 per cent. For the 1870s and 1880s the total percentage of MDs and MBs was 65 with the MB the more popular degree by the latter decade. From the 1840s to the 1880s MAs and BAs ranged from 14 per cent of all recorded degrees to 10 per cent. Only one MA in 1907 and no BAs are listed after the 1880s.

<sup>&</sup>lt;sup>46</sup> The value to be attached to degrees and licences was a topic much debated by the various parliamentary committees that investigated medical education, particularly the effects of the 1858 reform legislation on their value. The prevalent attitude of those who testified was that licences especially, and some degrees, were often unreliable indicators of the quality of medical education possessed by the individual. See especially *PP*, Cd 320, 1879, op. cit., note 7 above, p. 274, and *PP*, 'Report of the Royal Commissioners appointed to inquire into the Medical Acts', C3259-I, 1882, p. 24. See also Woodhull, op. cit., note 36 above, pp. 4–5.

<sup>&</sup>lt;sup>47</sup> Thomas Moore Sunter (no. 4746), commissioned in 1843, was the first WI/WA surgeon to have three degrees: BA in 1834 from Trinity College in Dublin, followed by an MB in 1841 and an MD in 1862. The first surgeons to hold five degrees/specializations were both commissioned in 1904, James Henry Douglass (no. 359) and Alexander Loftus Otway (no. 362). Douglass was born in Ceylon and earned an MB, BCh, and BAO/LM from Rotunda Hospital in Dublin in 1901, followed by an MD and a DPH in 1903 in Dublin. Otway, born in Ireland, had an MB, BCh, and BAO initially, then acquired a specialization in state medicine in 1912 and DPH from London University in 1913.

 $Table \ 4$  british army surgeons with west indian or west african service with medical degree and origin of degree by decade (percentage distribution)

Decade (N)	No Degree	Single Degree	Multiple Degrees	Ireland	Scotland	England	Other	Not Specified
1840s	49.3	44.0	6.7	10.5	86.8		2.6	
(75) 1850s (66)	72.7	21.2	6.1	5.6	61.1		5.6	27.8
1860s (71)	49.3	38.0	12.7	16.7	22.2			61.1
1870s/1880s (45)	42.2	37.8	20.0	26.9	23.1	11.5		38.5
1890s (41)	31.7	22.0	46.3	25.0	7.1	46.4		21.4
1900–1909 (120)	18.3	36.7	41.7	19.1	17.0	13.8	2.1	47.9

(Sources: Johnston and Drew rolls.)

For the 1840s and 1850s these four degrees were the only ones noted in the rolls. During the 1860s a fifth degree in surgery appeared, variously designated. Over 8 per cent of the degrees of the 1860s fell in this new category, rising to around 13 per cent for the decades of the 1890s and 1900–1909.

Not until the 1880s did a sixth type of degree in public health appear, again variously known. Over 23 per cent of the 34 degrees noted for the 1880s were in this category, with only the MD and MB having higher percentages. By the 1890s, though other specializations were now being recorded, those in public health constituted almost 34 per cent of the total of 62 degrees. In the initial decade of the 1900s the 18 per cent in public health degrees was second only to the over 30 per cent in MBs.

During the final two decades ending in 1909 a variety of specializations were acquired by army surgeons, many after their initial degree when commissioned. A Diploma in Tropical Medicine was first recorded in 1891.<sup>48</sup> The first specialist in obstetrics/midwifery appeared in 1898 along with three specialists in bacteriology in the same year. Specializations abounded in the 1900–1909 decade: dermatology, ophthalmology, dental surgery, and otorhinolaryngology were first noted in 1900; dermatology and venereal diseases became a combined specialization in 1901; and physical training was recognized in 1902. Otology and pathology were added in 1904 and 1909 respectively.

As there were patterns of popularity among the types and number of degrees held, so the locations of the universities and medical schools from which most of the degrees and diplomas were secured varied through the decades (see Table 4). In the 1840s 33 of the 38 recorded degrees (some 87 per cent) were from Scottish universities, with only 4 of the 33

<sup>&</sup>lt;sup>48</sup> From its founding in 1860 the AMS had included tropical diseases and their treatment as part of its curriculum. When the government was considering abolishing the school in 1876, the Netley senate argued that subjects were taught there, including tropical medicine, that were taught nowhere else in Britain. See Cantlie, op. cit., note 7 above, vol. 2, pp. 220, 225. The navy, on the other hand, even after the establishment of the London School of Tropical Medicine in 1898, initially refused to allow its surgeons to attend. See Lloyd and Coulter, op. cit., note 10 above, vol. 4, pp. 33–9.

BRITISH ARMY SURGEONS WITH WEST INDIAN OR WEST AFRICAN SERVICE: TYPE OF DEGREE HELD AND PROFESSIONAL MEMBERSHIPS BY DECADE

Medical Colleges <sup>f</sup>												
~ C	_		_		∞		4		7		46	
Other Specialties (%)											21	(12.4)
Bacter-iology (%)									7	(11.3)	6	(5.3)
Obstetrics <sup>e</sup> (%)									3	(4.5)	22	(12.9)
Tropical Medicine <sup>d</sup> (%)									5	(8.1)	2	(1.2)
Public Health <sup>c</sup> (%)							∞	(20.0)	21	(33.9)	31	(18.2)
Surgery <sup>b</sup> (%)					4	(8.3)	2	(5.0)	<b>«</b>	(12.9)	23	(13.5)
BA (%)	4	(9.3)	2	(8.7)	3	(6.2)	2	(5.0)				
MA (%)	2	(4.7)	_	(4.3)	Э	(6.2)	2	(5.0)			_	(9.0)
MB (%)	9	(14.0)	7	(30.4)	13	(27.1)	15	(37.5)	18	(29.0)	52	(30.6)
MD (%)	31	(72.1)	13	(56.6)	25	(52.1)	=	(27.5)			6	(5.3)
Decade (N/D) <sup>a</sup>	1840s	(38/43)	1850s	(18/23)	1860s	(36/48)	1870s/1880s	(26/40)	1890s	(28/62)	1900-1909	(94/170)

(Sources: Johnston and Drew rolls.)

<sup>a</sup> Number of surgeons holding degree/total number of degrees held. <sup>b</sup> Includes CM, ChM, MCh, MS, BCh, ChB, DCh, and DS.

<sup>c</sup> Includes DPH, BS(PH), and DStMed.

<sup>d</sup> Includes DTM and DTM&H.

<sup>c</sup> Includes BAO and LM.

Major professional memberships were: FRCSI, 13 beginning in 1846; MRCS Eng., 14 beginning in 1899; and LRCP Lon., 16 beginning in 1899. Of 67 memberships, 59.7% were English, 28.4% were Irish, and 11.9% were Scottish. These memberships are excluded from the degree totals and percentages.

being from St Andrews University, which had previously sold medical degrees completely apart from any study or residency. Lankford and others refer to it—and to other universities, for St Andrews had not been alone in the practice—as "notorious degree mills". <sup>49</sup> Edinburgh, Aberdeen, and Glasgow universities all offered programmes of study thought by some to be among the best available at the time. <sup>50</sup> Scotland remained the foremost producer of medical degrees for WI/WA army surgeons during the 1850s, with over 60 per cent of all recorded degrees, but dropped during the 1860s to 22 per cent, holding around 23 per cent in the 1870s/1880s, and declining again to 17 per cent in the initial decade of the 1900s.

Universities and teaching hospitals in Ireland are credited with few of the degrees during the 1840s and 1850s, but by the 1860s they produced almost 17 per cent of identifiable degrees held by WI/WA army surgeons. For the following three decades until the end of the 1890s, they trained around 25 per cent of the surgeons, this percentage dropping to 19 in 1900–1909.<sup>51</sup>

There were no recorded English degrees until the 1880s when some 13 per cent were so identified, but this percentage jumped to over 46 per cent in the 1890s, primarily in 1898 and 1899. This was due partly to the establishment of the RAMC and partly to the increased number of English medical schools. For these reasons, among others, enlistment became more respectable and profitable for English medical graduates, This percentage fell to less than 14 in 1900–1909, but the origins of 48 per cent of all degrees during that decade were unspecified.

What future did these WI/WA army surgeons face? Was it darker and more dangerous than that faced by surgeons assigned elsewhere in the empire? The data on how each surgeon ended his military medical career reveal certain patterns (see Table 6). There were, for example, relatively few resignations from the service, even during the 1840s and 1850s when assignments to specific regiments were being recorded.<sup>52</sup> Given the reputation of the West Indies and West Africa for deadly climate, more resignations or transfers might have been expected from officers ordered to the West Indian regiments.<sup>53</sup> There were no resignations of a permanent nature from 1861 to 1906, when there were two. There were resignations with half-pay, particularly during the 1850s and 1860s as a result of the Crimean glut of surgeons, but these men were usually re-appointed to full-pay status.<sup>54</sup>

<sup>&</sup>lt;sup>49</sup> Lankford, op. cit., note 2 above, p. 68. St Andrews and others, King's College of the University of Aberdeen, for example, received much attention from the parliamentary committees prior to 1858. See *PP*, Cd 620, 1847, op. cit., note 11 above, pp. 141, 145–6, 172; *PP*, 'First and second reports from the select committee on medical registration and medical law amendment', Cd 210, 1848, pp. 22–3; and *PP*, Cd 702, 1848, op. cit., note 11 above, pp. 6, 9–10, 300–2, 305–6, 309–12, 316–18.

<sup>&</sup>lt;sup>50</sup> PP, Cd 620, 1847, op. cit., note 11 above, pp. 12, 52, 115, 146, 150; PP, Cd 702, 1848, op. cit., note 11 above, p. 9; and PP, C3259–I, 1882, op. cit., note 46 above, p. 313. A random sample of 2,000 medical practitioners in the 1847 *Medical Directory*, for example, indicated that some 63 per cent of the known medical degrees were from Scottish universities. Loudon, op. cit., note 11 above, Table 24, p. 220.

<sup>&</sup>lt;sup>51</sup> PP, C3259-I, 1882, op. cit., note 46 above, p. 282, where it is stated that passing the College of Physicians examination in Ireland almost guaranteed that the individual would pass the military medical examination.

<sup>&</sup>lt;sup>52</sup> The last regimental assignments were noted in the rolls in 1861 and were replaced with theatres of service, usually with years served, in 1862.

<sup>&</sup>lt;sup>53</sup> Charles Gerhard Borcherds (no. 4711) was one of those who wanted nothing to do with service in a WIR regiment. Commissioned and assigned to the 1st WIR on 24 June 1842, he resigned on 22 July 1842. Thomas James Holmes (no. 4729) was another who resigned. With an MD from St Andrews, he was commissioned on 27 December 1842 and assigned to the 1st WIR. He resigned on 28 June 1844.

<sup>&</sup>lt;sup>54</sup> The navy may have had a higher level of resignations than the army, quite possibly because of the less favourable conditions under which navy surgeons served until the 1880s. An 1866 parliamentary committee

 $Table\ 6$  British army surgeons with west indian or west african service: Type of service termination by decade (percentage distribution)

Decade (N)	Other/No Information	Resigned	Resigned/ Reappointed	Retired	Died
1840s (75)	2.7	8.0	2.7	26.7	60.0
1850s (66)	1.5	3.0	9.1	34.8	51.5
1860s (71)	4.2	1.4	9.9	46.5	38.0
1870s/1880s (45)	20.0			51.1	28.9
1890s (41)	22.0		2.4	68.3	7.3
1900–1909 (120)		1.7	3.5	81.7	13.3
1840–1909 av	e. 5.7	2.6	4.8	53.8	33.0

(Sources: Johnston and Drew rolls.)

As Table 6 indicates, the most significant trends are found among those who retired and those who died while in service. The percentage of those retiring increased steadily from the 1840s, when almost 27 per cent retired, to the initial decade of the 1900s when almost 82 per cent retired. Almost 35 per cent retired in the 1850s, over 46 per cent in the 1860s, 51 per cent during the 1870s/1880s, and over 68 per cent in the 1890s. As retirement percentages increased, there was a corresponding decrease in service deaths from 60 per cent during the 1840s to 13 per cent during the initial decade of the 1900s. In the 1850s the percentage of deaths was still more than half of all WI/WA surgeons, but by the 1860s there had been a significant drop to 38 per cent, followed by 29 per cent in the 1870s/1880s, and 7 per cent in the 1890s.

It is possible to examine this favourable retirement/death dichotomy in terms of total years of service for all WI/WA surgeons. From 1840 to 1897, 237 surgeons served an average of almost 18 years in the army. Those in the 1840s served an average of 15 years, in the 1850s 18 years, in the 1860s 20 years, and in the 1870s/1880s over 17 years (see Table 3). In contrast the 147 who served from 1898 to 1909 averaged almost 25 years in the army. Of the 117 surgeons who retired during the 1840–1897 period, the average service time was almost 23 years; for the 120 who died in service during that period the average was 13 years. Although more surgeons were retiring while fewer were dying during the years from 1840 to 1897, an average differential of 10 service years persisted between the two groups. It is possible that the earlier decades were not as unhealthy as commonly thought, but more probable that the latter decades were not as healthy as often assumed. The average years of service for those who retired were over 23 for the 1840s/1860s and 21 for the 1870s/1880s. For those dying in service the comparable averages ranged from 11 to 16. The overall

reported that of 389 applicants who passed the competitive examination during 1856–1865 (180 or 31.5 per cent, had failed the exam), 21 per cent had resigned. Lloyd and Coulter, op. cit., note 10 above, vol. 4, p. 19.

stability in the average ages and years of service until 1898 in Table 3 suggests that the benefits of the new scientific medicine and sanitation only became clearly evident around 1900.

For those surgeons who lived long enough to retire, the average ages at time of retirement are steady from 1840 to 1897 by decade, ranging from a high of almost 49 years during the 1840s to a low of almost 46 during the 1860s (see Table 3). For the entire period the average age at retirement was almost 47 for the 112 surgeons (42 per cent of all WI/WA surgeons commissioned during the period). For the 1898–1909 period the comparable figures were almost 51 years for 129 surgeons (85 per cent of the sample). Again, the data indicate a general and unexpected stability over the years from 1840 to 1897, tending to confirm the pattern found in average years of total service.

When the average age at time of death is examined, stability is again apparent for these years. The average age at death for 175 surgeons (66 per cent of those commissioned) was 49 years (see Table 3). The average age for the 1840s was 50, for the 1850s 49, and for the 1860s 51, with a sharp drop to 40 for the 1870s/1880s. In contrast, for 1898–1909, 132 surgeons (87 per cent of the sample) lived almost 69 years.<sup>56</sup>

When average life years from time of commission are examined, improvement is evident from the 1840s to the 1860s, the average years rising from over 22 in the 1840s to over 25 in the 1860s (see Table 3). The data for the 1870s/1880s, with a decline to 14.5 years, again appear to be anomalous. Despite this, the marked differences between the 1840–1897 and the 1898–1909 periods persist. For the former period 200 surgeons (75 per cent of the sample) lived almost 23 years following commission while for the latter period 132 surgeons (87 per cent) lived 43 years.

Officers assigned to West Indian regiments from 1840 to 1861, at which time the practice of indicating such assignments in the rolls ceased, had higher average years of life from time of commissioning for the 1840s and 1850s than did all WI/WA surgeons. This is surprising given that the regiments during these two decades served exclusively, usually on a rotational basis, in the West Indies and in West Africa. With these regions' reputation for deadliness, a higher attrition rate would seem likely for those serving with West Indian regiments. During the 1840s medical officers in the first three regiments (the first assignment to the 4th WIR was in 1855) lived an average of 30.6 years after receiving their commissions, compared with 22.3 for all surgeons with service in the WI/WA area. For the 1850s the average for WIR surgeons was 26.3 years compared with 23.4 for all surgeons commissioned in that decade. The average years of life following commission vary among the regiments, but for the 76 officers known to have had assignments to WI regiments from 1840 to 1861, the average was 27.6 years.

Where did the army surgeons with WI/WA experience die? With larger percentages dying while on active duty during the first three decades, one would expect more surgeons to die in the West Indies and in West Africa. Analysis of the place of death known for 246

<sup>&</sup>lt;sup>55</sup> Some nine surgeons retired aged 60 between 1840 and 1867, after which time 55 became the normal maximum age for retirement. William Arthur Thomson (no. 5074), a Scotsman with an MB from Maris College of Aberdeen University, was 62 years of age when he retired on 10 March 1892. James Jameson (see note 44) exceeded this when he retired on 1 June 1901 at the age of 63 years and 10 months.

<sup>&</sup>lt;sup>56</sup> The youngest surgeon at death was William Augustus Forbes (no. 6294), a Scotsman, who died in Jamaica on 15 May 1867 at the age of 21 years and 10 months, only 1 year and 2 months following his commission. Harry William Russell (no. 395), an Englishmen commissioned on 30 July 1904, was the oldest surgeon at his death on 20 June 1967, being 90 years and 3 months.

surgeons (59 per cent of the sample) indicates that over 50 per cent of those commissioned during the 1840s died in the West Indies (over 29 per cent) or in West Africa (over 21 per cent) (see Table 7). For those commissioned during the 1850s the percentage of WI/WA deaths dropped to over 44, with a further decline to over 38 per cent for surgeons of the 1860s. The percentage of surgeons dying in England, Ireland, and Scotland for these three decades rose, as the percentage of officers living to retirement age increased, from 31 in the 1840s to over 40 in the 1850s and over 45 in the 1860s. The 1870s/1880s again seem anomalous because places of death are known for only 16 of the 45 officers commissioned then. No surgeon died in the WI/WA area during the 1890s and only two did so during the initial decade of the 1900s. For the entire 1840–1909 period, 33 per cent died in the West Indies or in West Africa while over 47 per cent died in the UK, over 34 per cent of whom died in England, the favoured retirement area even for Irish and Scottish army surgeons.

 $Table\ 7$  British army surgeons with west indian or west african service by place of death by decade (percentage distribution)

Decade (N/%) <sup>a</sup>	West Indies	West Africa	Ireland	Scotland	England	India/ Ceylon	Other
1840s	29.5	21.3	4.9	1.6	24.6	9.8	8.2
(61/81.3) 1850s (47/71.2)	21.3	23.4	8.5		31.9	4.3	10.6
1860s (44/62.0)	18.2	20.5	15.9	2.3	27.3	11.4	4.5
1870s/1880s (16/35.6)	25.0	37.5	12.5	6.2			18.8
1890s (15/36.6)			13.3	6.7	60.0	6.7	13.3
1900–1909 (63/52.5)	1.6	1.6	4.8	11.1	54.0	9.5	17.5
1840–1909 ave. (246/58.9)	16.7	16.3	8.5	4.5	34.6	8.1	11.4

(Sources: Johnston and Drew rolls.)

#### PERSPECTIVE AND CONCLUSION

Were these WI/WA surgeons typical or atypical of army surgeons generally? The prosopographical evaluation indicates that they constituted an average grouping, geographically determined, of all army surgeons. In terms of their medical qualifications and skills as surgeons, the similarities with their fellow MOs outweigh the differences. Concerning their life expectancy as medical officers, the data confirm but also modify the stereotype of WI/WA deadliness commonly held during the 1800s.

It is true that more were Irish and Scots and fewer were English than for the entire AMD. The basic reason for this seems to have been the greater difficulty that the Irish and Scots experienced in attempting to establish a civilian practice, coupled with the attraction of a

<sup>&</sup>lt;sup>a</sup> Number for whom death place recorded/percentage of WI/WA surgeons commissioned in decade for whom death place known.

regular income soon after medical apprenticeship or study.<sup>57</sup> For some, the appeal of travel, life in foreign countries, wild-game hunts, and opportunities to study tropical plants and diseases would also have been important.<sup>58</sup> Despite the English opinion of the Irish and Scots and their non-English degrees, there is no evidence of discrimination by army medical authorities in promotion recommendations.<sup>59</sup> Likewise, there is no indication that Irish and Scottish MOs were selectively chosen to serve in the West Indies or in West Africa.

With respect to their qualifications as surgeons, they seem to have been as good—or bad, depending on the decade and one's viewpoint—as the average army surgeon. Despite the variable quality of degrees from different institutions, one must assume that more medical degrees imply more medical quality among MOs. For almost 50 per cent of WI/WA surgeons during the 1840s to have had degrees, particularly when apprenticeship was still common, is remarkable. For this percentage to increase during the following decades argues for overall improvement in the quality of army surgeons. For the period 1860–1914, for all MOs who served in the AMD, 22.8 per cent held MDs. For the period 1840–1909 for all WI/WA surgeons, 21.3 per cent held MDs. For all the variability among degrees, the MD was considered more prestigious than most others, and the surgeons sent to the WI/WA area had their share.

Lankford's assertion that the poorer students in each class were often sent to the West Indies and to West Africa is not confirmed by the analysis. He states that officers were commissioned by class rank based upon the combined scores of their AMS entrance examination and their Netley final examination. If the average and poorer surgeons were sent to the WI/WA area, more from the lower ranks of each class would be present in our sample. Such is not the case (see Table 8). When each class is analysed and grouped by decade of commission, with each officer ranked in upper third, middle third, and lower third of class, a remarkable regularity is evident—both before the establishment of the AMS in 1860, when no tests were given, and after its establishment when the practice of ranking presumably began. In the pre-AMS period over 32 per cent of WI/WA officers came from

<sup>&</sup>lt;sup>57</sup> Lankford, op. cit., note 2 above, pp. 64–7; Lankford, op. cit., note 41 above, especially pp. 515–17; and Shepherd, op. cit., note 20 above, vol. 1, pp. 12–13.

<sup>58</sup> Crawford, op. cit., note 7 above, vol. 2, pp. 364–8, mentioned these and other reasons as he compared the advantages and disadvantages of the RAMC, the Royal Navy, and the Indian Medical Service with first one another and then with civilian medicine in the United Kingdom. Not surprisingly he argues that military medicine enjoyed more advantages than civilian—the IMS being the best of the military. See also Loudon, op. cit., note 11 above, pp. 208–9, who refers to the tradition of "service abroad" for graduates of Scotland's medical schools, especially in the early 1800s.

<sup>&</sup>lt;sup>59</sup> Lankford, op. cit., note 2 above, p. 199, and Woodhull, op. cit., note 36 above, p. 6. There is evidence of bias in regimental postings, however, as Lankford indicates in appendix H, p. 314. Comparing assignments to guards regiments and to non guards regiments, almost 63 per cent of the English in the sample were with guards regiments while only some 18 per cent of the Irish so served. The percentages for non guards regiments were 36 for the English and 37 for the Irish. The comparable percentages for Scots were over 7 and 14. Social discrimination was also common. In the early Ft Pitt years of the AMS, one Englishman remembered "most of his fellow officers as pretty rough specimens of the Scottish and Irish schools who badly required a course of mess instruction on how to use a silver fork or a finger bowl", Cantlie, op. cit., note 7 above, vol. 1, p. 438.

<sup>60</sup> Lankford, op. cit., note 2 above, p. 68.

<sup>&</sup>lt;sup>61</sup> Ibid, p. 178.

<sup>&</sup>lt;sup>62</sup> Ibid., pp. 75, 82. Woodhull, op. cit., note 36 above, p. 5, confirms that this was the practice in 1891, but Cantlie, op. cit., note 7 above, vol. 2, p. 280, in discussing the provisions of the Royal Warrant for 27 November 1879, states that "their commissions as surgeons dated from the last day of the competitive examination" and makes no mention of the final Netley examination. There is thus some uncertainty as to the period during which the scores of the two examinations determined the ranking of commissions, but Lankford's statement must be considered, given his expertise.

Table 8
BRITISH ARMY SURGEONS WITH WEST INDIAN OR WEST AFRICAN SERVICE BY COMMISSION RANK IN THIRDS BY DECADE (PERCENTAGE DISTRIBUTION)

Decade		Rank	
(N)	Upper Third	Middle Third	Lower Third
1840s	30.7	24.0	45.3
(75)			
1850s	34.8	28.8	36.4
(66)			
1860s <sup>a</sup>	35.7	27.1	37.1
(70)			
1870s/1880s	33.3	31.1	35.6
(45)			
1890s	34.1	29.3	36.6
(41)			
1900–1909	31.7	34.2	34.2
(120)			
Pre-AMS ave. 1840–1859	32.6	26.2	41.1
(141)			
Post-AMS ave. 1860–1909 (276)	33.3	31.2	35.5

(Sources: Johnston and Drew rolls.)

the upper third of those commissioned each year, with percentages of over 26 for the middle third and 41 for the lower third. Post-AMS percentages, based upon two classes per year, are even more equal: over 33 for the upper third, 31 for the middle third, and over 35 for the lower third. It is therefore unlikely that the AMD authorities utilized commission rank when considering officers for service in the WI/WA area.

Concerning the prevalent stereotype of the deadliness of the West Indies and West Africa for military personnel, although complex and at times inconsistent, the data generally confirm the reality giving rise to the stereotype. Although the 1840s and the 1850s were the deadliest decades for WI/WA surgeons, an examination of average ages and average years of service in Table 3, for example, reveals a persistent regularity for some of the categories that extends into the 1880s. The young army surgeon who feared assignment to the WI/WA area had grounds for his reluctance to serve there, in turn causing the British army to experiment with inducements to make such service more attractive.<sup>63</sup>

At the same time, however, improvement became noticeable with the 1860s as the mortality of WI/WA surgeons approached more closely that of their colleagues stationed

<sup>&</sup>lt;sup>a</sup> Prior to the establishment of the AMS in 1860, commission rank is by year; from 1860 on commission rank is by the two graduating classes each year.

<sup>&</sup>lt;sup>63</sup> As early as the Royal Warrant of 1 March 1873 provision was made to pay surgeons who served in West Africa double the regular amount. The years there also counted double toward a pension. The Royal Warrant of 2 December 1879 continued the double-pay provision for actual time served on the coast. One year of West African service also entitled the surgeon to a full year of leave. The 1879 warrant also stipulated that service in West Africa should be voluntary. With the difficulty the government and army were having securing any candidates for the medical department, it is not surprising that special inducements were offered. The 1879 warrant stipulated, however, that those who did so volunteer "shall enter under the same qualifications as other Medical Officers". See Cantlie, op. cit., note 7 above, vol. 2, p. 433; War Office 32/6393, 2 December 1879; Lankford, op. cit., note 2 above, pp. 128–9; and Johnston, op. cit., note 4 above, p. liv.

Table 9

$(N/\%)^{a}$	ıeaı	Year	Year	Year	Year	Years							
	_	2	n	4	5	6–10	11-15	16-20	21–25	26–30	31-40	41-50	51+
1840s	10.4	10.4	1.5	0.6	1.5	12.0	7.5	0.9	4.5	3.0	0.9	10.4	17.9
(67/89.3)													
1850s	3.3	4.9	8.2	4.9	3.3	4.11	8.2	4.9	8.6	3.3	11.5	11.5	14.8
(61/92.4)													
1860s	1.9	11.3	5.7	3.8	3.8	0.0	7.5	5.7	9.4	7.5	13.2	20.8	9.4
(53/74.6)													
1870s/1880s	9.6	16.7	9.6	0.0	0.0	==	16.7	9.6	9.6	22.2		0.0	0.0
(18/40.0)													
1890s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	3.4	3.4	10.3	31.0	48.3
(29/70.7)													
1900-1909	0.0	0.0	0.0	0.0	0.0	5.9	4.8	2.9	3.8	11.5	13.5	21.1	39.4
(104/86.7)													

<sup>(</sup>Sources: Johnston and Drew rolls.) <sup>a</sup> Number for whom year of death recorded/percentage of WI/WA surgeons commissioned for whom year of death known.

elsewhere. For example, 33 per cent of all army surgeons commissioned during the 1860s died before attaining 20 years of service. This percentage was almost 19 during the 1870s, almost 20 in the 1880s, over 13 in the 1890s, and over 16 in the initial decade of the 1900s. For WI/WA surgeons commissioned during the 1840s and 1850s, the percentages for those not attaining 20 years of service were quite high—58 and 49 respectively. Yet for those commissioned during the 1860s the percentage of over 39 compares more favourably with the 33 per cent for the entire AMD. For the remaining three decades of the 1800s, an average of over 25 per cent failed to reach 20 years of service. By the initial decade of the 1900s fewer WI/WA surgeons failed to achieve 20 years of service (over 10 per cent) than did all AMD surgeons combined (over 16 per cent).

The decrease in mortality rate for WI/WA army surgeons is particularly noticeable during the first five years of service, as Table 9 indicates. The horrific rate of 33 per cent dying within five years of commissioning for the 1840s had fallen to over 24 per cent for the following decade. It remained high at over 26 per cent during the 1860s, but for the remaining three decades it fell to over 10 per cent. The favourable pattern is also evident in the percentages for the second five years of service: 12 in the 1840s, over 11 in the 1850s, 0 in the 1860s, and 4 for the remaining decades of the 1870s, 1880s, and 1890s. 65

As the mortality rate was dropping for WI/WA surgeons with less than 20 years of service from the 1840s on, so the longevity of life following commissioning was increasing for those who lived more than 30 years. Even of those commissioned during the 1840s, over 34 per cent would exceed 30 years of post-commission life. This percentage increased to almost 38 for the 1850s and to over 43 for the 1860s. The combined percentage for 1870–1899 was over 59 and that for 1900–1909 was at 74. By the 1860s, if over 39 per cent of surgeons would not attain 20 years of service, over 43 per cent would live more than 30 years after commissioning. In effect, with respect to health conditions in the West Indies and West Africa, by the latter decades of the 1800s the dangers to health and life had become exaggerated in the minds of many young army surgeons. Army medical life was dangerous in itself, wherever one served.<sup>66</sup> Lived at times in the West Indies and West Africa, that life was relatively more dangerous during the 1840s and 1850s, but by the 1860s the differential between WI/WA and other AMD surgeons had lessened. By the 1890s there was little variation in life expectancy between the two groups. After 1909, "In absolute terms, West Africa was not a 'white man's grave,' but neither was it a health resort". 67 British army surgeons serving there and in the West Indies at the time would have concurred.

<sup>&</sup>lt;sup>64</sup> Lankford, op. cit., note 2 above, pp. 147, 311.

<sup>&</sup>lt;sup>65</sup> Curtin, op. cit., note 3 above, pp. 35–9, argues that the period from the 1840s through the 1860s saw a marked drop in deaths among overseas military personnel, especially those from Britain and France. Comparable mortality rates among WI/WA surgeons also fell, though not markedly so.

<sup>&</sup>lt;sup>66</sup> Lankford, op. cit., note 2, above pp. 147–8, points out that even civilian doctors were generally known to live shorter lives than laymen.

<sup>&</sup>lt;sup>67</sup> Curtin, op. cit., note 1 above, p. 69.