"Signs of the Times": Medicine and Nationhood in British India

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ABSTRACT

Medical practice and research in colonial India historically had been an imperial preserve, dominated by the elite members of the Indian Medical Service. This was contested from the 1900s on by the emerging Indian nationalism. This essay studies debates about the establishment of a medical research institution and how actors imposed the political identities of nationalism on British colonial practices of medical science. At the same time, Indian nationalism was also drawing from other emerging ideas around health and social welfare. The Indian nationalists and doctors sought to build the identities of the new nation and its medicine around their own ideas of its geography, people, and welfare.

INTRODUCTION

On April 18, 1923, Lt. Col. S. H. Burnett, an officer of the Indian Medical Service (IMS), traveled from 29 Pembridge Square, London, along Hyde Park to the India House, Whitehall, to meet Edward J. Turner, undersecretary of state for India, to explain his reasons for premature retirement from his post of surgeon superintendent of St. George's Hospital in Bombay.¹ Burnett had two main grievances against the medical service in India. The first concerned the financial disincentives: lack of decent salary and the loss of private practice. The second grievance was an immediate one: "I find myself now confronted with a totally new and unexpected position in that a committee of three Indians appointed by the Bombay University are to visit and, virtually, inspect the European General Hospital reporting on it with a view to its affiliation as a field for clinical study and instruction of postgraduates among whom will, doubtless, be Indians."²

In December 1921, Fardunji M. Dastur (registrar, University of Bombay) had written to the government of Bombay's surgeon general that a university committee had

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¹ Lt Col SH Burnett, I.M.S., Reasons for taking leave preparatory to Retirement including Question of Examination of European Patients by Indian Medical Students," C&R 1784, 1923, L/E/7/1156, Asia, Pacific and Africa Collections, British Library, London (hereafter cited as APAC).

²Burnett to the Personal Assistant to the Surgeon General, Govt. of Bombay, 28 Dec. 1921, 1–2, L/E/7/1156, APAC.

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been appointed to inspect St. George's Hospital.³ Burnett, in charge of the hospital, saw a more sinister plan behind this inspection: the university was encroaching upon a British medical institution; the proposed recognition of this European General Hospital as a study field for certain postgraduates was likely to be followed by the inclusion of Indian postgraduates also.⁴ The proposal of inspection by Indians, he suspected, was designed to convert the hospital into a site of regular study for Indian medical students. This was unacceptable to Burnett, as the hospital would then not remain an exclusively European institution. He concluded, "[T]he visit of the Committee I regard as signs of the times which, in conjunction with the drawbacks I have already represented, prompt me to ask for leave pending retirement."⁵

In London, Burnett urged Turner to ensure that the European hospital in Bombay should not be turned into a training ground for Indian students. Turner forwarded Burnett's letters to the government of India (GOI) and the registrar of Bombay University and urged that the case be taken up by the director general of Indian Medical Service (DGIMS) as well.⁶ But he was informed that there was little the imperial government could do in this matter, as medical administration, including hospitals and provisions for medical education, following the Indian reforms of 1919, was a "transferred subject" in which only the governor of Bombay and the provincial Council of Ministers were responsible. Lord William Peel, the secretary of state, wrote to Governor George Lloyd, who replied that he considered Burnett's objection "a grave one."8 Soon, Lloyd informed Peel that the surgeon general of Bombay had assured him there was no move to make the St. George's Hospital an institution of medical instruction for university graduates. He had in fact withdrawn this facility from the university itself, and now the hospital was available only to the military assistant surgeons.9 Lloyd reassured Peel, "I need scarcely add that I should never dream of allowing European patients in our hospitals out here to be used as clinical material for the study of Indian medical students."10

Although the matter seemed resolved, this was indeed a sign of the times in India. With the rise of nationalism, medical research and education were becoming contested territory. The contestation was occurring in three areas. One was the culture of medical instruction for Indian doctors. The second was the enrolment of more Indians in such institutions, and the third was the more general arena of the state and welfare.

There was growing professional pressure from Indian university-based medical faculties and students who formed the nongovernment independent medical profession (non-IMS) that had led to the antagonism and distrust of the IMS toward this group. Related to this was the question of facilities of clinical study and research for Indian doctors and students. Burnett's case also represented the increasing discontentment among the IMS officers about their service conditions, salaries, living

³ Fardunji M. Dastur to the Surgeon General, Govt. of Bombay, 13 Dec. 1921, L/E/7/1156, APAC. ⁴ Burnett to the Personal Assistant to the Surgeon General, Govt. of Bombay, 8 Jan. 1922, 1, L/E/7/

^{1156,} APAC. ⁵ Ibid., 2–3.

⁶Turner's note to the Government of India (GOI), 1 May 1923, L/E/7/1156, APAC.

⁷ Note from Dawson to Turner, 8 Aug. 1923, L/E/7/1156, APAC.

⁸ Draft paragraph of the private letter from Lord Peel to Sir George Lloyd, 14 May 1923, 1, L/E/7/1156, APAC.

⁹Lloyd to Peel, Turner, and Hirtzel, 8 June 1923, L/E/7/1156, APAC.

¹⁰ Ibid.

standards, and loss of private practice. There was also a rising anxiety among the IMS about losing control in the country's medical matters, as after 1919, public health, hospitals, and medical administration had passed to provincial legislative control.

Burnett's objection to the Indian inspection of a British institution reflected a general British fear and anxiety about Indian encroachment. What was that encroachment? Nationalism in its attempts to create its own identities and spaces had challenged some of the established norms of medical tradition that the British had so carefully established in India, a process that engendered political, physical, moral, and institutional encroachment. This had also created a disjuncture in the established ideas of medicine and the state. British ideas of public health, from the mid-nineteenth century on, were based on the Chadwickian notion that people's health was a matter of public and state concern.¹¹ The British had sought to introduce this notion in India as well, albeit on a limited scale. But it was precisely this convergence of the "public" and the "state" that was now being contested in India. The nationalist movement, which was growing in popularity, was challenging the authority of the colonial state to represent public concern and welfare as part of its struggle for state power. Thus in India, the question of science and national identity had become a political one. David Potter has suggested that one of the main reasons for decolonization in the postwar period was the shortage of manpower in the British Empire.¹² This crisis, he argues, developed independent of the nationalist movement. I would like to suggest that this crisis of manpower was indeed a political issue, sparked by nationalist politics.

The essay will also demonstrate that in this period, despite the obvious differences, there was also a convergence in the practices of science and medicine in the developmental frameworks of emerging nation-states. This was within a broader concomitance of industrialism and development, the Soviet model of planned economy, and the political ideology of socialism. The health planning of India in the 1930s and the 1940s, as pursued by the nationalists, was driven by the same faith and idealism that had shaped science-based development of the emerging nations, particularly following developmental plans of the Soviet Union and the intellectual realignment between science and society following the Second International Congress of the History of Science in London in 1931. This was an important alliance of science and medicine in planning national development, a plan which shared a problematic relationship with Gandhi.

RESEARCH AND MEDICINE IN COLONIAL INDIA

The university-government divide in medical research that Burnett's episode alludes to holds a key to the history of medicine in India, as well as to the history of Indian nationalism. University education and teaching had been the mainstays for the emergent Indian middle class, and universities had historically been an important site for Indian intellectuals, for their political struggles. The first generation of Indian scientists who became prominent at the turn of the twentieth century were all products of the Indian universities.

There are some notable features in this enmeshed history of science and medi-

¹¹Christopher Hamlin, "State Medicine in Great Britain," in *The History of Public Health and the Modern State*, ed. Dorothy Porter (Amsterdam, 1994), 134–44.

¹² David C. Potter, "Manpower Shortage and the End of Colonialism: The Case of the Indian Civil Service," *Modern Asian Studies* 7 (1973): 47–73.

cine. David Arnold has pointed out that although there were several Indian scientists working in physics and chemistry, there were very few working in medicine.¹³ A related phenomenon was that even the engagement in physics and chemistry tended to be more in fundamental science than in applied science. As noted by Y. Guay, between 1907 and 1926, while British chemists in India devoted their time exclusively to applied research, Indian scientists were more interested in pure and theoretical research.¹⁴

Part of the explanation for this, as argued elsewhere, was that for many Indian scientists, research was a moral and fundamental quest, part of their search for nation-hood and identity in the modern world. Besides, university education in India, as initiated by the British, was based on the principles of the Victorian educator Thomas Arnold, which stressed "character building." The British saw these principles as particularly relevant for Indians, whom they perceived to be in need of the virtues of science and rationality. In Indian university-based science curriculum tended to focus on fundamental sciences, physics and chemistry, and mathematics.

The other reason was the British monopoly in medical sciences in India beginning in the mid-eighteenth century. This dominance was institutionalized through the formation of the IMS, a body of medical men emerging from the eighteenth-century military traditions of the English East India Company.¹⁷ As the company's territorial control over the Indian subcontinent expanded by the middle of the nineteenth century, British doctors of the essentially military establishment had larger civilian practices as well, in the hospitals, dispensaries, and research institutions springing up in the various parts of the country. This dual role of the IMS, in military and civilian health care, was unique and crucial to its survival and influence. With the assumption in India of crown rule in 1858, public health became an important concern of the government, thereby further increasing the sphere of activity of the British medical officers. The other important characteristic of the IMS was its strong metropolitan links. The entrance exams for recruitment were held only in England, and candidates received their training almost entirely in British universities. By contrast, in the Indian university curriculum, courses in medical science and research remained rudimentary, and very few Indians joined the profession until the turn of the twentieth

The history of the British initiative in medical research has also to be seen against the backdrop of the lack of government investment in either science laboratories or technical education. The only investment in research by the state was in medical science, in the bacteriological laboratories, pioneered by the IMS cadres in the 1890s.

¹³ David Arnold, "Colonial Medicine in Transition: Medical Research in India, 1910–47," *South Asia Research* 14 (1994): 10–35, 27.

¹⁴ Y. Guay, "Emergence of Basic Research on the Periphery: Organic Chemistry in India, 1907–1926," *Scientometrics* 10 (1986): 77–94, 87–88. On the other side of the spectrum was the nationalist movement for technical education and institutions: Aparna Basu, "The Indian Response to Scientific and Technical Education in the Colonial Era, 1820–1920," in *Science and Empire: Essays in Indian Context, 1700–1947*, ed. Deepak Kumar (Delhi, 1991); and Basu, "Technical Education in India, 1900–1920," *Indian Economic and Social History Review* 4 (1967): 361–74.

¹⁵ Pratik Chakrabarti, Western Science in Modern India: Metropolitan Methods, Colonial Practices (New Delhi, 2004), 146–214.

¹⁶ Ellen E. McDonald, "English Education and Social Reform in Late Nineteenth-Century Bombay: A Case Study in the Transmission of a Cultural Ideal," *Journal of Asian Studies* 25 (1966): 455–60.

¹⁷ For a study of the emergence of the IMS, see Mark Harrison, *Public Health in British India*, *Anglo-Indian Preventive Medicine*, 1859–1914 (Cambridge, UK, 1994), 6–35.

Throughout the colonial period, hardly any facilities for research in physics or chemistry existed outside the small university laboratories. Appeals for research facilities by nationalists and scientists remained unheeded. In 1890, following the visit by the prominent physicist J. C. Bose, some distinguished scientists in the United Kingdom wrote to the secretary of State for the establishment of a central laboratory in Calcutta. The GOI, however, refused to consent, citing "the present state of finances." This was indeed part of a long tradition of refusing such requests. 20

Apprehension about the uncertain consequences of the practice of science by the natives, particularly in the context of increasing nationalism, perhaps motivated this reluctance as well. In 1890, an editorial in the Anglo-Indian newspaper *Civil and Military Gazette*, while commenting on the introduction of modern science in India, mentioned that "one has to be careful because the crooked native mind could transfer any knowledge, as it had done with modern education, rather than accepting as an idea of reason, into an ideology of dissent."²¹ Medical research, by contrast, was considered to be the stronghold of the imperial regime and thus a safer investment. The *British Medical Journal* supported the suggestion put forward in the Indian Medical Congress of 1894 that some of the government funds for education be used for building medical research institutes, adding that the "educated Bengali babus" were only interested in becoming "disloyal and seditious agitators."²²

This had created a two-tiered medical profession in India. Prior to the First World War, IMS officers had manned most of the medical research institutes and university professorships, apart from the military posts, while the Indian graduates occupied the subordinate posts. Until 1913, Indians composed only 5 percent of the IMS; by 1921 their numbers had risen to compose 6.25 percent.²³ The nonofficial medical workers had formed their own organizations, such as the Bombay Medical Union (BMU) and the Calcutta Medical Club. They mainly directed their activities toward "enhancing the status and dignity of the Indian medical profession."²⁴ They also formed what was commonly known as the "university group."

Such a system generated areas of conflict. The growth of the independent medical profession was not totally undesired by the government as it promised more cheaply trained doctors at a time when doctors were increasingly in demand in the empire. For example, in 1899, George Hamilton, the secretary of state, had urged the GOI to

¹⁸ "Memorial from Certain Distinguished Scientists Advocating the Establishment of a Central Laboratory at Calcutta," 12 May 1897, File 723, L/PJ/6/445, APAC.

¹⁹ Reply from A. Godley, India Office, 21 March 1898, File 460, L/PJ/6/473, APAC.

²⁰ In 1898, a similar request was refused by the secretary of state on the ground that the required sum of six lakhs of rupees could not be spared as it was the time of the Afghan wars. *Hitavadi*, a vernacular newspaper, commented, "It is a wonder that a man in the position of the Secretary of State has not hesitated to make such a reply. A Government unable to spare six lakhs for a beneficial object is wasting crores in foreign wars!" *Hitavadi*, 1 April 1898, in *Report on Native Papers of Bengal Presidency*, 1898, File 345, L/R/5/24, APAC. Bose's requests for assistance for his institute in 1917 were refused as well: see "Application of Dr. J. C. Bose, CSI, CIE, for Certain Grants of Money to Enable Him to Carry Out His Scheme for a Research Institution in Furtherance of the Work in Which He Is Engaged," Department of Education, A, Proceedings, July 1917, Nos. 9–11, National Archives of India, New Delhi (hereafter cited as NAI).

²¹ Civil and Military Gazette, 17 April 1890, 4.

²² "A Bacteriological Department for India," British Medical Journal (BMJ) 1 (1897): 31–32.

²³ Roger Jeffery, "Recognizing India's Doctors: The Institutionalization of Medical Dependency, 1918–1939," *Modern Asian Studies* 13 (1979): 301–26, 311.

²⁴ As quoted in Mridula Ramanna, *Western Medicine and Public Health in Colonial Bombay*, 1845–1895 (New Delhi, 2002), 3.

sponsor the independent medical profession in India for provincial civilian services. But the plans were dropped as British residents opposed any reduction of European medical assistance for their well-being. ²⁵ However, by the turn of the century, two developments had become apparent: the government had realized that the growth of the IMS needed to be reduced for reasons of cost, and members of the IMS were growing anxious about the loss of their lucrative civilian practice.

These developments had followed several decades of protests by the independent medical professionals. Since the late nineteenth century, the BMU, in partnership with the Indian National Congress (INC), had been demanding an end to the monopoly of the IMS.²⁶ In 1913, BMU had sent its representations to the Royal Commission on the Public Services in India demanding equal status, privileges, and emoluments for the independent medical men, especially those in higher grades.²⁷

The same year, the *Indian Medical Gazette*, a publication by the IMS officers, complained about the political interventions and subsequent decline in IMS recruitment in Britain: "The unrest in India, the treatment of that unrest by the authorities and the political developments of the present day, have made men hesitate before embarking on an Indian career." Thus, "civil practice is not what it was, little money can be made in many stations; moffussil life is less attractive than it used to be."28 The British Medical Association (BMA), representing the IMS in England, also sent a memorandum deploring the present conditions of the service. According to them, the decreasing number of British men in the IMS posed a structural as well as a "grave moral" question for the future welfare of India. They stressed that India still needed the healing hands of imperial medicine: "Those who know the Indian most intimately, and who admire most intelligently his many excellent qualities as a profession man, cannot blind themselves to the fact that his standards are still far from being those of his British brother."29 The reference here was to the unprecedented legislative control over British medical practices in India that was being imposed following the agitation by Indians, which had brought the elite service within the contemporary political spectrum. According to the BMA, the government was responsible for restricting private practice, but the opposite had occurred due to a movement that emanated "from the educated Indians who have been trained in our colleges."30 The situation also led the British medical personnel to demand centralization and a reapportioning of responsibilities. The memorandum suggested the creation of a provincial medical service, which through its own (mostly Indian) medical officers could carry the "blessings" of Western medicine to the remote parts of India, leaving the IMS officers to concentrate on more central questions of research and public health policy.³¹

The contemporary political context was indeed becoming important. The early decades of the twentieth century in India had seen the struggle for political power. These had led to several constitutional and legislative concessions. The post–World

²⁵ Jeffery, "Recognizing India's Doctors" (cit. n. 23), 310.

²⁶ Ramanna, Western Medicine and Public Health (cit. n. 24), 217–21.

²⁷ Representation of the Bombay Medical Union to the Royal Commission on the Public Services in India (Bombay, 1913), 1–4.

²⁸ Indian Medical Gazette (IMG), Oct. 1913, 396–99.

²⁹ "Memorandum on the Present Position and Future Prospects of the Indian Medical Service," 1913/14, British Medical Association, Medical Appeal Board, 1, L/S&G/8/305, APAC.

³⁰ Ibid.

³¹ Ibid., 11.

War I period provided the great push for the Indianization of medical services and further accentuated political tension. In 1919, the British introduced the Montague-Chelmsford Reforms, which prompted provincialization. The reforms introduced the concept of "dyarchy," transferring functions such as education, health, and agriculture (referred to as "transferred" subjects) to provincial legislative bodies, while retaining others, such as finance, revenue, and home affairs, as "reserved" or "imperial." This indirectly increased the number of elected Indian members in district boards and municipal corporations, since the authority to regulate local government bodies was placed in the hands of the popularly elected ministers, whose constituents naturally wanted more devolution of power.³² The reforms also provided a further incentive for centralization of British medical involvement in India, as the IMS and medical research remained largely under central governmental control.³³

RESEARCH AND PRIVILEGE

These changes had highlighted for the IMS officers that for them the future site of involvement in India could be, not in provincialized public health institutions, but in the centralized research institutes. This realization came with a certain sense of regret, as the British considered the introduction of modern public health and hygiene to India as one of their greatest contributions. In 1927, GOI public health commissioner J. D. Graham, in his lecture on the "Medical and Sanitary Problems of India," elaborated that these political reforms interfered with the essential and necessary "evolutionary" process of India's public health policy.34 Graham now wanted more control to be vested in the hands of the central government, as in the old days, and defended the need for European medical men, particularly in research.³⁵ In another lecture Graham stressed the need for British control over medical research, especially following the creation of the Bacteriological Department within the Indian government in 1906 to staff the medical research organizations.³⁶ The 1919 devolution of power had made such a choice more obvious, financially and institutionally. The department was reorganized in 1922, to "make it more attractive." When the Retrenchment Committee³⁸ proposed the reduction of expenses in research and in recruitment for the department, J. B. Smith (IMS, retired), medical advisor to the secretary of state, opposed the reduction, arguing that research opportunities became a new rationale for recruiting IMS cadres in the UK: "appointments in the Bacteriological Department are held out as an inducement to men entering the Indian Medical Service, and it is a breach of the promise made if the majority of these appointments are withdrawn."39

This had been the new journey of the IMS, from public health and hygiene, its proud heritage in India, to the laboratories of research. Beginning in the early de-

³² See Harrison, *Public Health in British India* (cit. n. 17), 60–98.

³³ Arnold, "Colonial Medicine in Transition" (cit. n. 13), 24.

³⁴ Seventh Congress of the Far Eastern Association of Tropical Medicine, Souvenir, the Indian Empire, Being a Brief Description of the Chief Features of India and Its Medical and Sanitary Problems (Calcutta, 1927), 55.

³⁵ Ibid., 58.

³⁶ "Medical Research and Organisation," Seventh Congress of the Far Eastern Association of Tropical Medicine (cit. n. 34), 102.

³⁷ Ibid., 102–3.

³⁸ Headed by Lord Inchcape (1922–23).

³⁹ "Retrenchment in Expenditure on Medical Research in India," Dept. of Education, Health, and Lands, A, May 1925, Nos. 17–25, 9, NAI.

cades of the twentieth century, medical research in India became the site of privilege and preserve. One important aspect of that privilege was in the location of the institutes. In the British habitation of colonial India, location had been a fundamental imperial concern. From the middle of the nineteenth century, this had driven them to the salubrious hills, in an attempt to retain their racial and climatic distance from the dusty tropical plains. In the thickly wooded hills and swirling mists of the hill stations, the British had sought to build around themselves a replica of English life.⁴⁰ Anglo-Indian medical ethics had followed the same trend, and in seeking to avoid the heat and dust of tropical research it had established most of its laboratories in the hills, such as the Pasteur Institutes (from 1900) and a Central Research Institute (CRI, 1907).

The second feature of privilege in research was in funding and personnel. Pardey Lukis (DGIMS) wanted a group of trained men and resources that would not require the sanction of the secretary of state or the legislative assemblies to fund medical research and so created the autonomous Indian Research Fund Association (IRFA) in 1911.⁴¹ As pointed out by Mark Harrison, through the IRFA, which came to symbolize "imperial efficiency" and humanitarian reform, "research-oriented medical men" managed to create a niche for themselves in colonial medicine and administration in India in the interwar period.⁴² The IRFA also created a skewed financial distribution, as it contributed almost exclusively to government research institutes and hardly anything to the universities.

The IRFA had an imperial character, it had the Scientific Advisory Board to advise on technical matters, but the real control was vested in the Governing Body, initially consisting only of the DGIMS and the sanitary commissioner of India.⁴³ The issue of preserving medical research for the IMS officers had become important by the 1920s, and research organizations were becoming the new sites of hope for the British recruits. The retired IMS officer and an expert on Indian medical affairs, Leonard Rogers wrote in the *BMJ*, while discussing the present problems of the IMS, "There remains one feature of the position the importance of which for the future of India and the IMS can hardly be exaggerated. The development of the research department, so far from being checked by recent difficulties, has received a definite impetus during the past few months." On another occasion, Rogers mentioned that one of the main attractions of the IMS was the IRFA and the research department.

A CENTRAL MEDICAL RESEARCH INSTITUTE

These pressures and the inadequacies faced during the First World War made the GOI look into the matter of medical research more closely. Plans were being made for a Central Medical Research Institute (CMRI) as the facilities of CRI in the hill station of Kasauli were felt to be inadequate. In 1920, the DGIMS felt it to be "a matter of

⁴⁰ Dane Kennedy, *The Magic Mountains: Hill Stations and the British Raj* (Berkeley, Calif., 1996).

⁴¹ Helen J. Power, "Sir Leonard Rogers FRS (1868–1962): Tropical Medicine and the Indian Medical Service" (PhD diss., Univ. of London, 1993), 148–49.

⁴² Harrison, *Public Health in British India* (cit. n. 17), 165.

⁴³ Arnold, "Colonial Medicine in Transition" (cit. n. 13), 14.

⁴⁴ BMJ 1 (1929): 1168–69. Rogers was the Indian correspondent for BMJ between 1898 and 1929.

⁴⁵ "Notes on the Indian Medical Service, 1930," ROG/C.19/22, Leonard Rogers Papers, Manuscripts, Wellcome Library, London (hereafter cited as Rogers Papers).

urgency to establish an additional research institute in a central position."46 The same year, Professor E. H. Starling of University College, London, sailed for India to advise the GOI on the location and establishment of the new institute. BMJ reported that the IRFA was to fund it, and Delhi was being considered as the possible site.⁴⁷

Starling drew up a detailed plan and proposed the erection of an all-India medical research institute at Delhi, the imperial capital since 1911.⁴⁸ The GOI accepted the scheme, and the secretary of state gave his approval.⁴⁹ But following the recommendations by the Retrenchment Committee, the plan was postponed indefinitely.⁵⁰ In 1927, the issue was raised again, and this time Walter Fletcher, secretary of the Medical Research Council (MRC), was appointed the head of another committee to look into the matter.

Fletcher's arrival in India was significant. One of the staunchest advocates of the primacy of medical research in contemporary Britain, Fletcher, as the secretary of the MRC from 1914 to 1933, had played a crucial role in the organization of medical sciences in Britain.⁵¹ A distinguished laboratory physiologist, Fletcher became a prominent statesman and administrator in the interwar period. As a strong believer in research, he had stressed that medical practice had to be based on research as much as in hospital wards. 52 The interwar period in Britain saw a struggle between scientists and medical practitioners about the nation's medical policy, and Fletcher was engaged in ensuring the supremacy of MRC.53 Fletcher's clash with Lord Dawson, president of the Royal College of Physicians, regarding the status of the MRC within British medical practice was an important episode in this.⁵⁴ Fletcher was also a keen advocate of autonomy in research and was responsible for putting the MRC on the same footing as the Department of Scientific and Industrial Research (DSIR), relatively free from governmental control.⁵⁵

Fletcher's agendas of prominence and autonomy of medical research, which had shaped contemporary British clinical medicine, corresponded perfectly with the interests of the IMS officers in India, although the motives were very different here. Fletcher suggested some important modifications to Starling's plans. For Fletcher, the question of location was fundamental for autonomy in research in India. His Report of the Committee on the Organization of Medical Research, issued in 1929, suggested that seclusion was paramount, however, in the colony; the agenda of seclusion was also linked to the efforts to escape from the heat, dust, and chaos of the tropical and political plains.⁵⁶ The report created a new link between climate and research: "it

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<sup>46</sup> "Proposed All India Research Institute" BMJ 1 (1920): 344.
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⁴⁸ Report of the Committee on the Organization of Medical Research under the Government of India (Calcutta, 1929), 15–16.

⁴⁹ Ibid., 15.

⁵⁰ "Retrenchment in Expenditure on Medical Research" (cit. n. 39), 7.

⁵¹ Joan Austoker, "Walter Morley Fletcher and the Origins of a Basic Biomedical Research Policy," in Historical Perspectives on the Role of the M.R.C.: Essays in the History of the Medical Research Council of the United Kingdom and Its Predecessor, the Medical Research Committee, ed. Joan Austoker and Linda Bryder (Oxford, 1989), 23-33.

⁵² Ibid., 24. ⁵³ Ibid., 29–31.

⁵⁴ Ibid., 31-32.

⁵⁵ Ibid., 28-29.

⁵⁶ Report of the Committee on the Organization of Medical Research (cit. n. 48), 43.

is equally certain that basic research can best be done in a climate favourable to the energy and mental acuity of the workers and moreover, in a climate where delicate technical processes and procedures in the laboratory as well as animal experiments, are not interfered with by extreme heat."⁵⁷ Delhi, which had been recommended by Starling, was rejected as it was considered too hot.⁵⁸ Bombay was rejected as it already had a small provincial laboratory. While rejecting the other main cities, the report gave the same reason: "What we have said about Bombay applies also to Calcutta," and "Our remarks on Bombay and Calcutta are applicable to Madras."⁵⁹ It is important to mention that large urban centers in India had become the main sites of the nationalist movement, particularly during the Non-Cooperation Movement (1921–22), which under Gandhi's leadership had shaken the British government.⁶⁰

Fletcher's choice was Dehra Dun, in the salubrious Garhwal foothills of northern India. A small cantonment town, Dehra Dun had been built by the British as a site for imperial institutions, including the Imperial Forest Research Institute and the Geodetic Branch of the Survey of India, and was also the projected site of the Royal Indian Military College, the Railway Institute, and Telegraph Headquarters. Colonial officials favored Dehra Dun as a retirement site. According to the report, these institutions provided an ideal atmosphere for scientific discourse. It also had a "Leper Hospital for 80 beds," which was considered adequate for providing clinical materials for the proposed CMRI.

Fletcher's agenda of autonomy in research thus translated itself in the colony into an urge to retain control of research in British hands. Before leaving for India, Fletcher, who had little prior knowledge about the country, had met Leonard Rogers in London, and the latter had updated him about the "Indian affairs." Fletcher wrote to Rogers gratefully: "Thank you indeed for the confidential memorandum about Indian affairs that you have been good enough to send. Now I hope you will pray for me in the very anxious task I see ahead, for which ignorance seems to be my only qualification." Rogers had made Fletcher apprehensive of Indian involvement. In December 1927, Victor Heiser, the Rockefeller Foundation's International Health Board's director for the East, met Fletcher in a "confidential conference" in Calcutta. Heiser found that Fletcher "fears greatly that the laboratory may soon pass

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⁵⁸ Ibid., 44-45.

⁵⁹ Ibid.

⁶⁰ Sumit Sarkar, Modern India, 1885-1947 (New Delhi, 1989), 204-25.

⁶¹ Report of the Committee on the Organization of Medical Research (cit. n. 48), 45.

⁶² John F. Richards, "Environmental Changes in Dehra Dun Valley, India: 1880–1980," *Mountain Research and Development* 7 (1987): 299.

⁶³ Report of the Committee on the Organization of Medical Research (cit. n. 48), 45.

⁶⁴ Fletcher to Rogers, 9 Nov. 1927, Medical Research Council, Adelphi, London, "Correspondence with Sir Walter Fletcher, Medical Research Council 1927–33," ROG/D.5/1–11/1, Rogers Papers. Rogers was a very influential figure. An IMS officer with a long medical career in India, a leading figure in tropical medicine and the founder of the Calcutta School of Tropical Medicine, he was also the staunchest critic of the Indianization of IMS. After his retirement in 1921, he was appointed a member of the India Office Medical Board in 1922 and its president in 1928, with collateral duty as medical adviser to the secretary of state. He used this latter position along with his status as the Indian correspondent of *BMJ* to resist any move by the government or Indians to provide concessions to non-IMS medical practitioners. George McRobert, "Rogers, Sir Leonard (1868–1962)," *Oxford Dictionary of National Biography* (Oxford, 2004).

into Indian hands unless special means are devised to change present tendencies."65 Thus, Fletcher's other emphasis was on recruitment of staff. The report suggested the appointment of a committee, ostensibly to secure a closer liaison between medical research organizations in India and in Britain. In effect, it was to foster closer links between the metropolis and the empire by making the issue of recruitment a metropolitan one, superseding the political voices in India. The committee was to be composed of a representative of the India Office, of the Ministry of Health (UK), of the MRC, and of the Royal Society. It would advise on general recruitment policy for Indian medical research workers as well. The Fletcher report also recommended that twenty-three out of thirty posts be reserved for IMS officers.⁶⁶

Fletcher's report reflected an interesting convergence of contemporary metropolitan and imperial concerns of laboratory research. The colonial scientists saw in the MRC and its arguments for autonomy in research a model for research in the colony. They found strong parallels between the MRC and the IRFA, particularly in their political insulation. When there were demands to include more legislative and Indian members into the IRFA, Rogers countered by showing how the IRFA had been "politicised" and "liberalised" over the years, unlike the MRC.⁶⁷ Rogers also wanted the MRC to play a more active role in funding imperial research in India and Africa.⁶⁸ The Fletcher report gave a formal shape to such trends.⁶⁹

With the submission of the report, the mood among the British medical men was confident. Rogers supported the idea that "suitable research men will in future have to be recruited mainly in Great Britain."70 The GOI acted quickly on the proposals and passed the financial approval through a Standing Finance Committee on August 29, 1928, soon after the report was submitted, not waiting for it to be discussed in the Legislative Assembly.⁷¹ Edward Turner wrote to Arthur Hirtzel, undersecretary of state, in June 1929, that the secretary of state had approved of the formation of a selection board in India and a consultative board in England for the appointment of the scientists in the institute.⁷²

While the government moved ahead with the plans, the Indian Legislative Assembly was questioning the motives behind them, particularly those concerning lo-

66 Report of the Committee on the Organization of Medical Research (cit. n. 48), 48–62.

⁷⁰ Rogers, note, "Public Health Institute Calcutta" (cit. n. 67), E&O 6102, 1928, 6, File B, L/E/9/609. ⁷¹ Extract from Volume VIII, No. 1 of Standing Finance Committee, 29 Aug. 1928, L/E/9/610,

⁷² Turner, undersecretary of state, to Fletcher, India Office, 7 June 1929, 3449/28 E&O 6163, L/E/ 9/609, APAC.

⁶⁵ Diary of Dr. Heiser's World Trip, 17 Oct. 1927 to 1 May 1928, 53-54, Rockefeller Archive Center, New York. Fletcher had forged a strong relationship between MRC and the Rockefeller Foundation, and in the interwar period the RF provided Britain with £2,500,000 for medical teaching and research. Austoker, "Walter Morley Fletcher" (cit. n. 51), 28.

^{67 &}quot;Public Health Institute Calcutta—Founded with Assistance from Rockefeller Foundation Central Medical Research Institute. Scheme in Abeyance of Fletcher Committee Report on the Organization of Medical Research," File 7B, 148, L/E/9/610, APAC. 68 Rogers to Graham, 17 Nov. 1927, ROG/A/55/76, Rogers Papers.

⁶⁹ However, A. V. Hill, in his famous report on scientific research in India, was careful to point out the limits of this comparison. While mentioning that the MRC in the UK "has an extremely free hand" and that the "Indian Research Funds Association (IRFA) plays a rather similar role in India" he added: "Its [IRFA's] funds, however, are very scanty . . . Because of its poverty it cannot take the same broad view of its functions as the MRC does: for example, to maintain even a single clinical research unit in one of the medical colleges would be financially out of the question until ampler funds are available." A Report to the Government of India on Scientific Research in India (London, 1944), 20–21.

cation and personnel, two important areas of nationalist contestation. Members of the assembly raised questions about whether the Fletcher report had been reviewed before approval and about the choice of Dehra Dun as the site.⁷³ In March 1929, M. S. Aney, leader of the INC and member of the Central Legislature, asked, "Are the Government aware that there is a strong feeling in the Indian medical profession against the recommendation of the Fletcher Committee to reserve a very large proportion of the cadre of the appointment in the Central Medical Research Institute for members of the Indian Medical Service?"⁷⁴ In June, the BMU wrote a note protesting the plans for the CMRI. They objected to two aspects of the Fletcher report: the choice of Dehra Dun—"a far-away place, removed from all facilities for clinical work"—and the reservation of almost all posts for IMS cadres.⁷⁵ The president of BMU, Dr. G. V. Deshmukh, in a letter to the secretary of the Department of Education, Health, and Lands, alleged that the government was trying to rush the matter without a proper debate. ⁷⁶ He added that the institute should be located in a university town and that the members of the independent medical profession wanted to participate in the debate. The isolated and imperial charters of Indian hill stations were increasingly subject to the pressures of political criticism in this period. This came as much from outside by leaders from the plains, as it did through the emergence of nationalist awareness among the resident population of shopkeepers, skilled workers, and the laboring poor of the hill stations.⁷⁷ The critique of Dehra Dun as the site of the institute was part of this movement.

Thus, while for the British scientists the issue of location was about isolation, for the nationalists it was about inclusion. The *Calcutta Medical Journal*, a publication of the Calcutta Medical Club, protested the selection of Dehra Dun, saying that such a central research institute would have to deal with the problems of the whole of India. It stressed that medical research also needed to be closely linked to the "great sites of learning" in India. He *Bombay Chronicle*, a nationalist newspaper, complained that while plans were going ahead for the establishment of a medical research institute for some time, "it is surprising that . . . no attempt has been made to secure the confidence and invite the co-operation of the public, including the independent medical profession in the country." The newspaper also criticized the government's moves to secure funding with such "unseemly haste," without discussions in the Legislative Assembly. About Dehra Dun, the paper was sarcastic. "Dehra Dun is a nice, cool station, affording to the presumably European staff to be engaged for such investigations a perpetual holiday there on the adjacent hills." The *Bombay Chronicle* supported the BMU demand that the new institute should be in a university town. The

⁷³ Extract from Official Report of the Legislative Assembly Debates, 14 March 1929, 1843, L/E/ 9/610, APAC.

⁷⁴ Ibid.

⁷⁵ "Copy of Extract from 'The Servant of India,' Poona, Thursday, 13 June 1929," 3449/28, 1–2, L/E/9/609, APAC.

 $^{^{76}\,}G.$ V. Deshmukh to Secretary of Dept. of Education, Health, and Lands, E&O 5586 1929, 16 May 1929, L/E/9/609, APAC.

⁷⁷ Pamela Kanwar, *Imperial Shimla: The Political Culture of the Raj* (Delhi, 1990).

⁷⁸ "Medical Research in India," *Calcutta Medical Journal* 23 (1929): 613–14, 613.

⁷⁹ Ibid., 613–14

⁸⁰ "Medical Research in India," reprinted from the Editorial, *Bombay Chronicle*, 4 June 1929, 2, E&O 5586/1929, L/E/9/609, APAC.

⁸¹ Ibid.

issue soon became part of the Indian university movement, where nationalists had a long-term presence. The All-India Inter-Universities Conference of 1929 in Delhi passed resolutions asking the government to appoint a committee, with representatives of the medical faculties of Indian universities, to report on the most suitable university centre for locating the proposed research institute.⁸²

A prominent doctor and dean of Gordhandas Sunderdas (GS) Medical College of Bombay, Jivraj N. Mehta, wrote to Dr. Drummond T. Shiels, undersecretary of state, that the existing institutes in Dehra Dun, such as the Geodetic Branch of the Survey of India, the Railway Institute, and the Imperial Forest Research Institute, had little to contribute intellectually to medical research. The real motive, he suspected, was privilege and autonomy, with the institute set to become the "Eton or Harrow" of India.⁸³ Mehta reiterated the nationalist demand that medical research had to go "hand in hand" with medical education.⁸⁴ He also suggested that it had been possible to pass such a proposal through the IRFA because almost all its members were high government officials, which was not the case in the Legislative Assembly.⁸⁵

In London, Leonard Rogers remained dismissive of this nationalist challenge and advised the government not to pay much attention to these "unofficial" medical men. Rogers the GOI to go ahead with the plans, which had been developing since the end of the war. Rogers prepared another note on recruitment. He pressed for a committee formed in England for the recruitment of the proposed institute as recommended by Fletcher. Rogers suggested that the committee should have representatives from the Royal Society as they had recently started a Tropical Diseases Committee. "Such men as Professor Nuttall of Cambridge would be very suitable," as well as experts from the London School of Hygiene and Tropical Medicine (LSHTM). Rogers also wanted university scholars from Edinburgh, "and I know that a first class man is willing to serve on it if asked to do so."

Such a response sparked intense protests in India. In the Bombay Council, in October 1929, Dr. M. K. Dixit of the Surat Medical Union moved a resolution against Dehra Dun as the site. ⁹⁰ Ebrahim H. Jaffar moved a resolution in the Shimla Council in September, warning the government "that they cannot, they dare not, accept such a recommendation if they desire to retain the confidence of the medical profession and the general public." The government, however, still seemed to be in an uncom-

^{82 &}quot;Statesman," 7 Nov. 1929, "Medical Research in India; I.M.S. Recruitment," New Delhi, 2359/21, L/E/9/609, APAC.

⁸³ Mehta to Shiels, 27 June 1929, 3-4, L/E/9/609, APAC.

⁸⁴ Ibid., 8.

⁸⁵ Ibid., 9-10.

⁸⁶Leonard Rogers, note on the petition of an unofficial Bombay Medical Institute to postpone for further consideration the eleven-year-old scheme for a Central Research Laboratory of the Research Fund Association of India, 9 July 1929, 1, L/E/9/609, APAC.

⁸⁷ Ibid., 1-2.

⁸⁸ "Recruitment of Medical Research Workers, Recommendation of Fletcher Committee Regarding Setting up of Consultative Board in This Country," 25 Oct. 1929, E&O 6159, 1–2, L/E/9/609, APAC.

⁸⁹ Leonard Rogers, note, "Proposal of the Fletcher Committee to Form a Consultative Committee at the India Office," 21 Oct. 1929, 1–2, L/E/9/609, APAC.

⁹⁰ Extract from Official Report of the Bombay Legislative Council Debates, 8 Oct. 1929, 590, L/E/9/609, APAC.

⁹¹ Extract from the Council of State Debates, vol. 2, no. 2, "Hon'ble Sir Ibrahim Haroon Jaffer's resolution in connection with the location of the Central Medical Research Institute. The Council met in the Council Chamber," Simla, 17 Sept. 1929, E&O 9492, 2–3, L/E/9/609, APAC.

promising mood and responded, "The Government of India . . . see no reason to alter their decision that the Institute should be located at Dehra Dun as recommended by the Fletcher Committee." Plans for the elite committee in England went ahead. The secretary of state, following Rogers's suggestions, had written to the Medical Research Council, the Royal Society, and the LSHTM to send their representatives to the committee, and they had all warmly accepted. 93

Meanwhile, the nationalists continued to press forward with their agenda. M. R. Jayakar⁹⁴ moved another resolution that Dehra Dun as the site for the institute should be reconsidered and a committee be appointed for that purpose.⁹⁵ Discussions in the Legislative Assembly were intense, and Frank Noyce, undersecretary to the GOI, suggested a compromise: a conference would be convened consisting of representatives of the medical faculties of Bombay, Calcutta, Lahore, Lucknow, and Madras to discuss the issue. The government promised to give "their fullest and most careful consideration" to the conference's recommendations.⁹⁶ Jayakar accepted the suggestion on the condition that three issues—location, recruitment, and funding—were included in the agenda.⁹⁷ He ended on an ominous note: "I hope the Government will realise that the days of isolated hilltops are gone for ever."

Rogers reacted sharply to the proposal of the conference, calling it a "surrender." For him the greatest blunder was in opening the recruitment issue for discussion, which had grave moral and physical implications. "[L]iterally millions of lives, now annually sacrificed to such scourges as cholera, malaria, plague etc., are at stake, as nothing but the best qualified research workers the world can produce are required in India at the present time." ¹⁰⁰ He stressed that the funding and recruitment issues should not be sanctioned for discussion. ¹⁰¹ Hirtzel agreed with Rogers, describing these political interferences in a matter of science as a "gross example of that prostitution of every other consideration to political considerations." ¹⁰²

The conference was held at Shimla on July 21–22, 1930. Noyce was the chairman; among the members were J. W. D. Megaw (DGIMS), J. D. Graham, and S. R. Christophers (director of CRI). The Indian contingent had a strong university representation: T. Krishna Menon Avargal (Madras University), M. N. Saha (Allahabad University), and Dr. J. N. Mehta (medical faculty, Bombay University). Zia Uddin Ahmad was the representative of the Legislative Assembly. Significantly, the two agendas to be discussed were the site and constitution of the IRFA; the recruitment issue was left

^{92 &}quot;Location of the Central Medical Research Institute at Dehra Dun," 7 Jan. 1930, E&O 9492/92, L/E/9/609, APAC.

⁹³ 5 Dec. 1929, E&O 9038; 6 Dec. 1929, E&O 9068; and 10 Dec. 1929, E&O 9168, L/E/9/609, APAC.

⁹⁴ Mukund Ramrao Jayakar (1873–1959), barrister, member of Bombay Legislative Council and vice chancellor of Poona University.

⁹⁵ Extract from the Legislative Assembly Debates, vol. 1, no. 12, 8 Feb. 1930, New Delhi, E&O 2919, 1, L/E/9/609, APAC.

⁹⁶ Ibid., 3–4.

⁹⁷ Ibid., 7.

⁹⁸ Ibid., 8.

⁹⁹ Roger to the Secretary of State, 29 April 1930, E&O 2919, 1, L/E/9/609, APAC.

¹⁰⁰ Ibid., 4-5.

¹⁰¹ Ibid., 5.

¹⁰² Hirtzel, handwritten note, 7 May 1930, E&O 2919, L/E/9/609, APAC.

out. 103 Noyce explained that the question of recruitment was considered settled in a 1928 press communiqué by the secretary of state, who saw no need to raise it again. The Indian delegates decided to discuss the issue nevertheless.

The conference led to a protracted, often fractious, discussion between the Indian medical men and the British experts. The main objective of Indian scientists concerning location was that the institute should be located in a university town in the plains—in Calcutta, Bombay, or Madras—which would ensure a closer link between research and education. Mehta even quoted from the earlier Starling committee, which had rejected the concept of a hilltop laboratory in favor of Delhi. 104 The agenda of location of the institute was intrinsically linked to the other issue of recruitment. An institute in a university town could recruit and train more Indian graduates. The final resolution, on which Christophers and Graham as advisory members did not vote, reflected the nationalist agenda. It was resolved that a Central Medical Research Institute should be located at a university center.¹⁰⁵ Large-scale changes in the governing body of the IRFA were also proposed, with more members from the Department of Education, Health, and Lands and the Legislative Assembly, and from among nonmedical scientists and the medical faculties of universities. 106 There was an addendum about recruitment: "the question of the reservation of posts in the Medical Research Department for the Indian Medical Service should have been referred to this Conference."107

These debates in India, to some extent, reflected another debate in contemporary medicine: that between research scientists and medical practitioners, between laboratories and hospitals, regarding the appropriate approaches to public health. In colonial India, to the IMS officers—the proud inheritors of the traditions of public health now faced with the political challenges—research and autonomy seemed the more attractive option. To Indian medical practitioners, by contrast, research needed to be linked to the hospitals and the universities of the country.

"AN IMPASSE HAS NOW BEEN REACHED"

Forwarding the details of the conference to the government, J. D. Graham attached little credibility to the conference's resolutions. He described them as "both anomalous and confusing," because a university group had debated upon a nonuniversity issue. ¹⁰⁸ He urged the government to keep medical research separate from the university matters. He alleged that it was, in fact, the Indian universities that were the real sites of insularity regarding the issues of public concern in India, "nor did these gentlemen have any clear idea of the needs of India as a whole in this respect." ¹⁰⁹

What had bothered the IMS officers most was the political intervention in medi-

¹⁰³ "Proceedings of the Conference Held at Simla on the 21 and 22 July 1930 to Discuss the Location of the Proposed Central Medical Research Institute and Other Matters," Calcutta, 1931, ii, V/27/850/4, APAC.

¹⁰⁴ Ibid., 9.

¹⁰⁵ Ibid., 109.

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

¹⁰⁸ "Notes on the Present Position of the Indian Medical Research Association in View of Recent Proposals for Reorganization," 6 June 1931, L/E/9/609, APAC.

¹⁰⁹ Ibid.

cal research. Rogers stressed that the Indian contingent in the conference was more a *political* outfit than a scientific one. "*Not a single one of the voting members had ever engaged in medical research work.*"¹¹⁰ They were, what he called, the "politically minded university group."¹¹¹ The conference thus could not be regarded as being representative either of public opinion or of people connected with medicine. The conference and its resolutions to him were a "calamity" that had grave implications for the millions of Indians:

An impasse has now been reached, through the sanctioning of this ill-advised conference, in which the Government of India and the Secretary of State must face, once and for all, the responsibility of deciding whether the efficiency of medical research in India, on which the future health of 350 million souls largely depends, is to be sacrificed to political expediency or not . . . Real courage will now be required to avert the calamity which must inevitably result, if the hitherto efficient administration of the medical research department of the Govt of India by a scientific Governing Body is subjected to the ruinous political control of the non-research university representatives; as demanded by their majority group at the recent conference. 112

This dislike of politics, as evident in Rogers's words, went along with a preference for "efficiency" and excellence. This particular inclination had a complex lineage. Part of it was the product of the national efficiency movement in British Edwardian politics, which sought to revitalize the country in the face of its loss of position economically to rising powers such as Germany and the United States. 113 Part of it was that modern science and development itself represented a language of efficiency against the seemingly chaotic muddle of politics. For the British, this language and politics of efficiency made particular sense in an increasingly politicized India. It had become the rationale behind arguments for preserving their control over medical research and other aspects of Indian civil life. Defending the older constitution of the IRFA with its British character, Rogers, in a 1932 note to the secretary of state, reiterated the link between efficiency and morality: "if the Secretary of State should be forced to conclude that efficiency must be sacrificed to political considerations, that sacrifice shall be made in clear knowledge of the facts, and with a full sense of responsibility for the inevitable resulting future loss of life from epidemic and other preventable diseases in India."114 In London, meanwhile, Fletcher had learned about the Shimla conference and its resolutions. In a letter to Rogers, he expressed his contempt for Indians and their politics: "It was the authentic chattering of the bandarlog."115 Fletcher suggested that now British involvement in Indian science and medicine was in question. "If, in a perfectly straightforward piece of scientific business like this, the Government of India show such vaccilation [sic], and play such a feeble

¹¹⁰Rogers, Minute Paper, Economic and Overseas Department, 1 May 1931, 2, L/E/9/609, APAC (emphasis in original).

¹¹¹ Ibid., 1–2.

¹¹² Rogers, note, 1 May 1931, 5, L/E/9/609, APAC, 9-10.

¹¹³ G. R. Searle, *The Quest* for *National Efficiency: A Study in British Politics and Political Thought* (Berkeley, Calif., 1971).

¹¹⁴ Rogers to Secretary of State, 16 Feb. 1932, File 7B, 147, L/E/9/610, APAC.

¹¹⁵ Fletcher to Rogers, 8 May 1931 [Private, confidential], ROG/D.5/1–11, Rogers Papers. *Bandarlog* is "monkey-people" in Hindi, a racially derogatory term used by the British for Indians. Fletcher was known for his strong language and opinions and was sometimes "too trenchant in his denouncement of others." Quoted in Austoker, "Walter Morley Fletcher" (cit. n. 51), 24.

game against ignorant and divided but sharp-witted antagonists, it makes one doubt whether we have any business to be in India at all."¹¹⁶

Rogers's words and Fletcher's sentiments proved to be prophetic. In 1932, a group of government medical personnel wrote to the secretary of state opposing most of the resolutions of the Shimla conference. According to them, the composition of the conference was biased toward nonofficial members, which made the resolutions prejudiced. They also opposed the conference's propositions for the reorganization of IRFA. Most important, they noted that a new institute funded by the Rockefeller Foundation was being planned in Calcutta, so the plans for the central research institute could be postponed. The current financial crisis, too, made the plans untenable. The CMRI was never to be established in British India, and the Rockefeller funded institute was to become a site mainly for training, not research.

The impasse that Rogers had referred to was an important one. It demonstrated that at certain points, accommodating the colonial identities of science and medicine to their emergent national ones had become untenable. This was the changing identity of science in India at this moment of political transformation. The hilltop laboratories, the IMS cadre, the IRFA, and the moral imperatives of an "evolutionary" public health represented the identity of the imperial science. The transformation described above was not just from imperial to national science. The spaces of negotiation had broken down also because British imperial medicine increasingly found itself in a changing world. While nationalist ideology questioned the motives, aesthetics, and ethics of imperial research, international health initiatives and funding, from the interwar era, had fast changed the norms of colonial health policy and research. Already by the 1920s, the schools of public health of American universities such as Johns Hopkins, Yale, and Harvard had become the centers of international public health instruction, attracting large numbers of foreign students. Significantly, A. V. Hill, in 1944, while drawing up plans for the future national scientific institutions of India, mentioned that the postindependence all-India medical center should be an "Indian Johns Hopkins." 120 In addition, organizations such as the Rockefeller Foundation were increasingly determining tropical health policies and research funding in Asia and Africa.¹²¹ Moreover, as we shall see next, the rationales of imperial medicine had become untenable in another respect. The identity of the new nation and its medicine was to be built around new ideas of state, people, and welfare.

"A REAL AND PRACTICAL IDEALISM"

While there was a stalemate reached at Shimla, there was new hope emerging elsewhere. The 1930s and 1940s were also a period of new dreams and visions around medicine and public health, particularly for the emerging nation-states. The main exposition of this was in the ideas of "socialized medicine," which defined much of In-

¹¹⁶ Fletcher to Rogers, 8 May 1931, ROG/D.5/1–11, Rogers Papers.

¹¹⁷ P. Willingdon, W. Chetwode, G. Raine, J. Crerar, G. E. Schuster, B. L. Mitter, Ahmad Said, and J. W. Bhore to Sir Samuel Hoare, 18 Jan. 1932, E&O 585, File 7B, 153–7, L/E/9/610, APAC.

¹¹⁸ Ibid., 156.

¹¹⁹ Ibid., 154-55.

¹²⁰ Hill, Report to the Government of India (cit. n. 69), 17.

¹²¹ John Farley, *To Cast out Disease: A History of the International Health Division of the Rockefeller Foundation* (1913–1951) (New York, 2004).

dia's public health planning of this period. Henry Sigerist played an important part in promoting this new ideology around health and development. A prominent critic of American health care, Sigerist stressed the need for a national health service and a socially equitable distribution of health care with funding by the state. He stressed that "all the people should have medical care, irrespective of race, creed, sex, or economic status, and irrespective of whether they live in town or country."122 The model behind his ideas was the Soviet Union, and in his Socialised Medicine (1937), he promoted its structure of health care to be adopted by other countries. According to him, the Soviet Union was the first country to socialize medicine and recognize that protecting the health of all the citizens was the responsibility of the state.¹²³ These were not just issues of health and well-being; they were also overtly political and ideological issues. According to Sigerist, socialized medicine could exist in its true form only as an integral part of a completely socialized state. Here Sigerist differed from the contemporary proponents of "social medicine," who stressed the more general social application of medicine and a convergence of medical and social sciences. For Sigerist, socialized medicine meant "socialist medicine." 124 His ideas and his writings in the history of medicine had their ideological links with those of J. D. Bernal, who following his Soviet inspiration criticized social inequalities of science, developed plans for socializing science, and stressed the interaction between scientific, technical, and economic development. It is also important to mention that in the interwar period, the BMA and the medical profession of Britain had been challenged by a small group of radical socialist physicians under the Socialist Medical Association. 125 This group too had been deeply influenced by the developments in the Soviet Union and the principles of socialist medicine. 126 This new ideology thus required a new politicization of the question of health care and a fresh alignment between the public and the state.

Despite ideological opposition from several sections in the West, Sigerist's *Socialised Medicine* had become immensely popular among Indian medical personnel. Soon after its publication, Sigerist had come into contact with Indian doctors and administrators who were impressed by his work. In 1941, Dr. Kamala Ghosh, who had worked in India for eight years as part of the Women's Medical Service and then pursued further studies in England, traveled to the United States for a few weeks. It was here that she found a new direction after reading *Socialised Medicine*. She wrote to Sigerist from New York: "reading your book on 'Socialised Medicine' a few weeks ago, all the problems in public health & education that I have been facing, were presented in an entirely new aspect, I became suddenly capable of solution." She decided to extend her stay in the United States to pursue a master's program at

¹²²Henry E. Sigerist, "Medical Care for All the People," *Canadian Journal of Public Health* 35 (1944): 253–67

¹²³ Henry E. Sigerist, Socialised Medicine in the Soviet Union (London, 1937).

¹²⁴ Dorothy Porter and Roy Porter, "What Was Social Medicine? An Historiographical Essay," *Journal of Historical Sociology* 1 (1998): 92–93.

¹²⁵The SMA was responsible for instituting the postwar National Health Service in Britain, despite opposition from the BMA. See John Stewart, "The Battle for Health": A Political History of the Socialist Medical Association, 1930–51 (Aldershot, UK, 1999).

¹²⁶ Stewart, "Socialist Proposals for Health Reform in Inter-War Britain: The Case of Somerville Hastings," *Medical Hist*ory 39 (1995): 338–57.

¹²⁷ Ghosh to Sigerist, 23 March 1941, "Correspondences with Dr Kamala Ghosh, 1941–43," folder 176, box 5, Henry Sigerist Papers, Manuscripts and Archives, MS 788, Yale University Library, New Haven, Conn. (hereafter cited as Sigerist Papers).

Johns Hopkins under Sigerist. Sigerist helped her to develop her research scheme, and Ghosh focused on the activities of local district boards and municipalities in India.¹²⁸ When she finished her course, she wrote to Sigerist, filled with enthusiasm for her future work in India. "This whole year has meant a very great deal to me an entire new world of thoughts & ideas has opened out, something I was totally unaware of before; & I know it is going to make a difference in my work when I get home."129 Although, tragically, Ghosh was killed on her way back to India, in Sigerist and in socialized medicine she had discovered a new vision for the future. As her sister Bimala Wallis wrote: "she found, for the first time in her life, a real and practical idealism."130

Sigerist visited India in December 1944, as an invitee to the Bhore Committee. (The committee had been set up in 1943, following nationalist demands for better health planning in India, under the chairmanship of Joseph Bhore, a lawyer and an ICS officer.) Sigerist realized that he was a familiar figure among Indians who knew about his knowledge of Arabic and Sanskrit and their classical texts. But it was his book on Soviet medicine that had been more widely circulated and read. "In Lucknow I was told that there was only one copy in town—it was out of print—but that it had been circulated and that every doctor had read it."131 Sigerist's paper on medical education had been mimeographed by the Bhore Committee, and copies had been sent to all the members of the committee and to the deans of all the medical colleges. The Bhore Committee accepted a number of his recommendations and incorporated them in its final report. 132

For India, Sigerist suggested the same doctrine of socialized medicine, in which medicine and socialist developments were to be integral. "It is quite obvious that a health plan for India can hold a promise of success only if it is an integral part of a general economic and social plan."133 Socialist planning with industrialization was to be the basis of the new regime of health, "the electrification of the country must be the backbone of any health programme." Electrification would lead to better agricultural productivity and higher income for the rural population. It would also provide power for the development of industries. The formula of development was straightforward: "[a] rising material and cultural standard would decrease the death rate and also the birth rate."134

Under Sigerist's influence, the Bhore Committee report became a documentation of socialized medicine in its insistence that public health was the fundamental responsibility of the state. The report made a case for a national health service, making references to his work on Soviet medicine. It was to also become the blueprint of India's future medical infrastructure.

In this stress on medicine and planned social development, the Bhore report had a precedent in India. The National Planning Commission (NPC) in 1939, created by the nationalists under Jawaharlal Nehru's leadership, advocated a state-sponsored

¹²⁸ Ghosh to Sigerist, 23 July 1941, folder 176, box 5, Sigerist Papers.

 ¹²⁹ Ghosh to Sigerist, 19 Oct. 1942, folder 176, box 5, Sigerist Papers.
 130 Bimala Wallis to Dr. Charlotte Silverman, 9 July 1943, folder 176, box 5, Sigerist Papers.

¹³¹ Report on India, folder 74, 1, box 35, Sigerist Papers.

¹³² Ibid., 2.

¹³³ Ibid., 9.

¹³⁴ Ibid., 10.

planned development following the Soviet model. 135 The INC established the NPC in 1938 to draw up the blueprint of the social and economic reconstruction of postindependence India, marking the beginning of socialist planning in India. While developing the scheme of the NPC, around the same time that Sigerist published Socialised Medicine, Nehru was drawing equally from the developmental experiences of the Soviet Union. 136 The NPC had a subcommittee charged with drawing up the provisions of public health and medicine, with Sahib Singh Sokhey, an Indian IMS officer, in charge.¹³⁷ The committee had recognized poverty as the main cause of ill-health, and the cornerstone of the scheme was a community health worker for every 1,000 village population. 138 Maintaining that the health of the people was the responsibility of the state, it stressed the need to integrate curative and preventive functions under a single state agency. However, through the Second World War, the Quit India movement (1942), and Indian Independence (1947), the report remained unimplemented and the final version was not published until 1947. Like these proponents of the Planning Commission, Sigerist too had his strong differences with Gandhi, whom he described as a "reactionary," seeking to take India back into the Middle Ages. 139

Sokhey, the main man behind the 1939 health planning, was also influenced by Sigerist and the Soviet Union.¹⁴⁰ After independence, Sokhey became part of Nehru's influential coterie of scientist-statesmen and was also a nominated member of the parliament. He continued his correspondences with Sigerist throughout the 1950s. One of Sokhey's main interests was in the convergence of industrialism and health care, highlighted by his own involvement in the industrial manufacture of penicillin in India in the 1950s. 141 In pursing these ideas he was confronted with the inequalities in international development, which hindered India's medical infrastructure. While attending the WHO meeting in Geneva in 1953, he wrote to Sigerist about the importance of social and economic parity for better health care and how these international bodies did not appreciate the needs of the poorer countries. "[W]e fail to attach due weight to the fact that the world is very unevenly developed. We tend to graft Western practices on to an economic system which cannot carry them."142 Reiterating the conclusions of his own report of a decade ago, he added: "the inescapable fact remains that if we would improve the health status of a people we can do so only by improving their economic and cultural status. . . . Improvements in health conditions can materialise only if the economic basis for them is prepared at the same time."143 Sokhey

¹³⁵ Sunil S. Amrith, Decolonizing International Health: India and Southeast Asia, 1930-65 (Basingstoke, UK, 2006), 61.

¹³⁶ Bidyut Chakrabarty, "Jawaharlal Nehru and Planning, 1938–41: India at the Crossroads," Modern Asian Studies 26 (1992): 277-78.

¹³⁷ National Planning Committee, Subcommittee on National Health Report (Bombay, 1948).

¹³⁸ Debabar Banerji, "The Politics of Underdevelopment of Health: The People and Health Service

Development in India; A Brief Overview," *International Journal of Health Services* 34 (2004): 127.

139 He ended his report on India saying, "[W]e may expect great events when Gandhi dies and when two million soldiers return from the war." Report, 15, folder 74, box 35, Sigerist Papers. For a study of the differences between Gandhi and Nehru over the NPC see, Chakrabarty, "Jawaharlal Nehru and Planning" (cit. n. 136), 282-85

¹⁴⁰ "Correspondences with Sahib Singh Sokhey, 1951–54," folder 808, box 22, Sigerist Papers.

¹⁴¹ Nasir Tyabji, "Gaining Technical Know-How in an Unequal World: Penicillin Manufacture in Nehru's India," Technology and Culture 45 (2004): 331-49.

¹⁴² Sokhey to Sigerist, 25 Sept. 1951, folder 808, box 22, Sigerist Papers.

¹⁴³ Ibid.

visited the USSR in 1953 to witness the development strategies around health and industry and was deeply impressed. He visited Moscow, Leningrad, and Stalingrad, went through the Volga dam and the industrial sites of Rostov, Kiev, and Tashkent, and he described the postwar reconstructions as well as the medical infrastructure to Sigerist; the large number of qualified doctors, the great stress on "Health Education" of the people, and the "abundance" of its medical infrastructure. Sokhey was awarded the Stalin Peace Prize in 1953, the same year as John Desmond Bernal.

Although this is not the place for a discussion of India's national development projects and its links with those of Soviet Union, it is important to highlight the similarities that these two new nations experienced in such pursuits. The Soviet Union was the first of Europe's multiethnic states to promote national consciousness over a wide variety of ethnic populations and to establish the institutional forms of the modern nation-state. The Bolshevik government, to defuse nationalist sentiment, trained new national leaders, established national languages, and financed the industrial infrastructures of the modern nation-state. To that extent, its nationalist developmental experience was comparable to that of India.¹⁴⁶

Another Indian doctor deeply inspired by Sigerist was Dr. Mahendra Bhatt, who passed his MBBS from Bombay University in 1941, and in 1945 he was awarded a Watumull Foundation fellowship for two years' study in the United States. He worked at the Department of Tropical Medicine, Tulane University, New Orleans. Following that he traveled in the United States and Canada, studying public health and medical care programs as arranged by the Harvard School of Public Health and sponsored by the Watumull Foundation.¹⁴⁷ Throughout this period, Bhatt was in regular contact with Sigerist, and following the latter's suggestion, he and his wife set off on a tour of Europe as well to study public health institutions in different countries. He also planned to visit the USSR but could not secure a visa during the war. In November 1947, soon after Indian independence, Bhatt set out for India, full of ideas and experiences he had encountered during his sojourn and enthusiasm for the new nation. He wrote to Sigerist on board ship in the Mediterranean, "So we are heading towards new India!"¹⁴⁸

In India, he applied himself in serving local health in the new state of Saurashtra, in western India. He helped with the creation of a new Department of Public Health, started rural health centers, child welfare centers, a nutrition and school health organization, antimalaria and filarial units, and mobile health education units in the shape of vans.¹⁴⁹ In 1950, he was appointed director general of Health Services of the Indian government as a special officer of health education and was posted to the capital Delhi.¹⁵⁰ However, he returned to Saurashtra a few years later to continue his work there. He wrote to Sigerist about the need he had felt to work in the interior of the country: "[I]f we want to improve and build up our health services the young

¹⁴⁴ Sokhey to Sigerist, 10 Aug. 1953, folder 808, box 22, Sigerist Papers.

¹⁴⁵ Sokhey to Sigerist, 14 Oct. 1953, folder 808, box 22, Sigerist Papers.

¹⁴⁶ Terry Martin, *The Affirmative Action Empire: Nations and Nationalism in the Soviet Union, 1923–1939* (Ithaca, N.Y., 2001), 2.

¹⁴⁷ "Correspondences with Dr. Mahendra Bhatt," 1947–48, folder 317, box 8, Sigerist Papers.

¹⁴⁸ Bhatt to Sigerist, 25 Nov. 1947, folder 317, box 8, Sigerist Papers.

¹⁴⁹ Annual Report for the Department of Public Health, United State of Saurashtra, Rajkot, for the Year Ending 1st March 1949, 6–7, folder 317, box 8, Sigerist Papers.

¹⁵⁰Bhatt to Sigerist, 25 Dec. 1950, folder 317, box 8, Sigerist Papers.

people with ideas and ability have to go to the interior and work in the field. I feel I will be able to contribute more by doing comprehensive public health work in these areas."¹⁵¹ Despite these local engagements, Bhatt had continued his interest in international health movements from where his inspiration had come. He had contacted George Rosen of Columbia University following Sigerist's suggestions in developing his projects on health education in India. ¹⁵² In 1954, when Sigerist was planning to visit the USSR, Bhatt expressed a desire to join him to study the public health setup there. ¹⁵³ Sigerist probably never made this trip due to failing health; he died in 1955.

This movement of the 1930s, which followed through to postindependence India, was an important aspect of Indian's nationalist engagement with the question of health, which developed in congruence with the ideas of India's scientific industrialism and development planning. While the ideas and identities of imperial health care were being challenged, there was a new alignment taking place between politics and medicine. Sigerist's scheme had appealed to Indian nationalists as it was a health plan with a clear political inspiration, something that the imperial and British models had been opposed to. The stress on local health, as evident in the cases of Ghosh, Bhatt, and Sokhey, was also distinct from the erstwhile British involvement in Indian local health and the constitutional provincialization of medical infrastructure on 1919, which was more an administrative issue deriving from the British traditions of local health care. The inspiration for these people had come from a different political ideology of grassroot activism and equitable distribution of resources. At the same time, there was a new legitimization of the state; the nation-state was to be the inspiration behind and provider of the health care of its people. Thus a new link between public health and state was envisioned. The three individuals studied above show three different aspects of internationalism, socialism, and the question of Indian health practices.

CONCLUSION

This essay has demonstrated how the identity of Indian nationhood and its choices of scientific models and infrastructure were intrinsically linked. Although the government of India had abandoned plans for a central research institute, the debates changed the discourse of medical research in India. In the short term, the British increasingly lost their grip over recruitment issues, and hostile questioning over the salaries and other benefits of European medical researchers continued in the Legislative Assembly. The Bhore Committee recommended the establishment of a national medical center. The foundations were laid in 1952, and the All India Institute of Medical Sciences (AIIMS) started functioning in Delhi in 1956.

In the longer term, there has been the mixed heritage of Indian medical science and national identity. The twin critiques of location and personnel, which was so crucial against imperial privileges and essential to Indian nationalism, have remained

¹⁵¹ Bhatt to Sigerist, 13 May 1953, folder 317, box 8, Sigerist Papers.

¹⁵² Sigerist to Bhatt, 3 Jan. 1952, and Bhatt to Sigerist, 13 May 1953, folder 317, box 8, Sigerist Papers.

¹⁵³Bhatt to Sigerist, 28 Sept. 1954, folder 317, box 8, Sigerist Papers.

¹⁵⁴ Arnold, "Colonial Medicine in Transition" (cit. n. 13), 29–30.

¹⁵⁵ Report of the Health Survey and Development Committee (Delhi, 1946).

important issues in postcolonial India. Through their criticism of the IMS, Dehra Dun, and IRFA, the nationalists and the medical men had urged for more provincialized and rural health care and more economically and socially accountable institutions. The Indian Council of Medical Research (ICMR), as the IRFA was renamed in 1949, actively promoted research in medical colleges and universities rather than in research institutes by bringing them in direct contact with research workers and with the outstanding research problems facing the country. ¹⁵⁶ From 1953, with the help of Rockefeller Foundation fellowships, the ICMR funded research in medical colleges and established several research units in university colleges in Agra, Bombay, and Calcutta. ¹⁵⁷ A report by the ICMR declared in 1957 that a new chapter had been opened and medical research was no longer confined, as in the days of the IRFA, to the research institutes in hill stations. "It has been brought to where it belongs—to centres of teaching and learning." ¹⁵⁸

Indian nation building, however, has not been without its own institutions and sites of privilege and the marginalization of the questions of politics. The Bhore Committee report, while being critical of the British medical research initiatives and urging for more widespread medical infrastructure in India, also supported the continuance of centralized research and disregarded the rural medical plans of the Sokhey report of 1939. Medical infrastructure, despite substantial investment in rural sectors through planned economy, has tended to remain urban oriented. Urban centers and metropolises have become the sites of real privilege and power in postcolonial India. In the preoccupation with building the major projects and medical infrastructure for the country, the smaller sanitary projects around drains and clean water had been overlooked, a movement that the British did initiate in India and Gandhi championed over large research institutes and hospitals. "The science of sanitation is infinitely more ennobling though more difficult of execution, than the science of healing." 159

The legacy of "socialized medicine" lives in India in the People's Health Movement (parallel to the People's Science Movement) with the goal to establish health and equitable development in local, national, and international policy. These movements continue to campaign with a slogan reminiscent of the ideas of the 1930s: "Health for All." However, with 30 percent of the population still under the poverty line and facing starvation and malnutrition, alongside an increasingly affluent and insulated middle class, these movements have struggled to establish the "right to health" as a fundamental right of the people of India.

The issue of personnel and politicization of recruitment has produced the most important and enduring legacy in India. Indian nationalism was a political struggle for state power, based often on demands for a greater share in jobs in technical and administrative posts, which had ultimately led to the crisis of imperial manpower. This politics found its manifestation in postindependence India in the socially repre-

¹⁵⁶ Indian Council of Medical Research: A Review of the Activities during the Years 1950–57 (New Delhi, 1957), 33.

¹⁵⁷ Ibid., 34.

¹⁵⁸ Ibid., 35.

¹⁵⁹ "Mr MK Gandhi, in Opening the Tibb College," *Indian Medical Record*, Aug. 1921, 184–85, 185.

¹⁶⁰ Ravi Duggal, "Health and Development in India: Moving towards Right to Healthcare," mimeo (2003), Centre for Enquiry into Health and Allied Themes (CEHAT), Mumbai.

sentative reservation of government and academic jobs for the deprived communities for their own political and economic empowerment. Reservation has since become the most critical force and feature of Indian democracy and nationhood. Yet at the same time, the logic of efficiency and merit has remained fundamentally a rationale of privilege, and Indian nationhood has embraced it as much as it has generated its critique. In India today, the groups protesting against Reservation (as recently led by the students of AIIMS) loathe this very politicization of recruitment and manpower, using the same notions of "efficiency" and excellence.