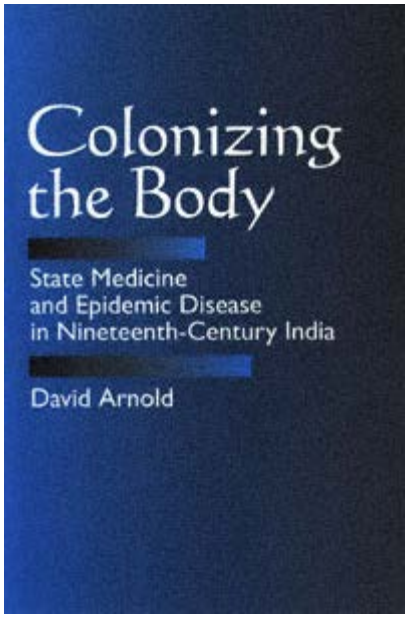
cover



title:	Colonizing the Body : State Medicine and Epidemic Disease in Nineteenth-century India
author:	Arnold, David.
publisher:	University of California Press
isbn10 | asin:	0520082958
print isbn13:	9780520082953
ebook isbn13:	9780585101446
language:	English
subject	Medicine--India--History--19th century, Medicine--Political aspects--India, Social medicine--India--History, Public health--Political aspects--India, Smallpox--Government policy--India, Cholera--Government policy--India, Plague--Government policy--India,
publication date:	1993
lcc:	R606.A75 1993eb
ddc:	362.1/0954/09034
subject:	Medicine--India--History--19th century, Medicine--Political aspects--India, Social medicine--India--History, Public health--Political aspects--India, Smallpox--Government policy--India, Cholera--Government policy--India, Plague--Government policy--India,

cover

Colonizing the Body

State Medicine and Epidemic Disease in Nineteenth-Century India

David Arnold

University of California Press
Berkeley Los Angeles

page_iii

University of California Press
Berkeley and Los Angeles, California.

University of California Press, Ltd.
London, England

Library of Congress Cataloging-in-Publication Data
Arnold, David, 1946
Colonizing the body: state medicine and epidemic disease in
nineteenth-century India / David Arnold.
p. cm.
Includes bibliographical references and index.
ISBN 0-520-08124-2 (alk. paper); ISBN 0-520-08295.8 (pbk.:
alk. paper)
1. MedicineIndiaHistory19th century. 2, Medicine
Political aspectsIndia. 3. Social medicineIndiaHistory,
4. Public healthPolitical aspectsIndia. 5. Smallpox
Government policyIndia. 6. CholeraGovernment policy
India, 7. PlagueGovernment policyIndia. 8. Imperialism.
I. Title,
R606.A75 1993
362.1'0954'09034dc20 92:25623
CIP

Printed in the United States of America
9 8 7 6 5 4 3 2

The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences Permanence of Paper for Printed Library Materials, ANSI Z39.48-1984.

Contents

Page vii

List of Figures and Tables

Figures

Tables

Page ix

anticholera serum did not resolve the political problems that surrounded attempts to contain cholera. At the same time, divided opinion within the medical profession in India as to the nature of the disease and the mode of its transmission made it more difficult for doctors and sanitarians to press the government to act, easier for

the administration to adhere to a noninterventionist policy that favored many of its commercial, financial, and political interests.

Cholera was a disease which seemingly presented an ideal site for the colonization of the body. Its prevalence and its far-reaching military and economic consequences made it an urgent candidate for medical and sanitary intervention; it fueled a powerful, critical discourse about Hinduism and popular religious rites and practices. It made it possible, after the manner of Florence Nightingale, for Western observers to equate sanitation with civilization and find India woefully wanting in both. It was a disease that figured prominently in early public health measures in Britain, an "Asiatic disorder" that aroused the fear of Europe and inspired the holding of several international sanitary conferences. And yet, for reasons this chapter has sought to explain, cholera produced a relatively muted reaction from the colonial regime. Cholera provides a striking illustration of how a political "reading" of a disease, or of the likely consequences of medical and sanitary attempts to control it, could set powerful limits to state intervention against that disease.

5
Plague: Assault on the Body

Between 1871 and 1921, India experienced what Ira Klein has aptly described as a "woeful crescendo of death. 1 A death rate of 41.3 per 1,000 of the population in the 1880s, already high by contemporary Western standards, rose to 48.6 per 1,000 in the decade 1911-21. The causes of this savage upsurge in mortality have been much debated. Some writers have stressed India's increased exposure, through modern systems of trade and transport, to new and invading pathogens like plague and influenza; others see high levels of mortality in India as a register of the ill effects of harsh or deteriorating economic, social, and environmental conditions.

Whatever the underlying causes, an immediate factor in precipitating this protracted crisis of mortality was a series of major epidemicsmalaria, cholera, influenza, and plagueoccurring against a background of high endemic disease levels. Between the mid 1890s and early 1920s, malaria alone might have been responsible for as many as 20 million fatalities, one in every five deaths recorded. Respiratory diseasestuberculosis, pneumonia, bronchitistook almost as heavy a toll, as did dysentery and diarrhea. Although smallpox was beginning to decline, partly under the influence of increased vaccination, this was small consolation while the incidence of cholera remained high, especially in the almost Indiawide famines of the 1890s and early 1900s. Further deadly blows were struck by bubonic plague, which between 1896, the year of its arrival, and 1921 caused an estimated 10 million deaths, and the influenza pandemic of 1918-19, which is thought to have left more than 12 million Indians dead in its wake.2

While influenza's impact was both rapid and short-lived, its devas-

tating second wave occupying only a few fatal months, plague took far longer to establish itself as a leading cause of mortality and lingered on as a major killer for several decades. During the first few years, its impact was concentrated in the cities, particularly Bombay, where plague was first officially acknowledged in September 1896, 3 and then in Pune, Karachi, and Calcutta. Within two or three years, it was affecting many smaller towns and reaching out into the countryside, and it was there that most of the later mortality occurred.

In 1901 plague mortality exceeded a quarter of a million deaths; the following year it touched half a million, and in 1904 rose above the one million mark for the first time. Plague deaths remained above this level in 1905 and 1907 but thereafter began a slow and erratic decline (see table 12). Plague lingered on in a few areas of India as late

Table 12. Plague Mortality in Bombay City and India, 1896-1914

	Bombay	*India*
1896	1,936	2,219
1897	11,003	53,816
1898	18,185	116,285
1899	15,796	139,009
1900	13,285	92,807
1901	18,736	283,788
1902	13,820	583,937
1903	20,788	865,578
1904	13,538	1,143,993
1905	14,198	1,069,140
1906	10,823	356,721
1907	6,389	1,315,892
1908	5,361	156,480
1909	5,197	178,808
1910	3,656	512,605
1911	4,006	846,873
1912	1,717	306,488
1913	2,609	217,869
1914	2,941	296,623
Total	183,984	8,538,931

Source: Turner and Goldsmith 1917. 456.

as the 1940s. The full extent of plague mortality, however, could never be determined, partly because of the concealment practiced in an attempt to evade intrusive state medical and sanitary measures. But the areas hit hardest by the epidemic were undoubtedly western and northern India: nearly three-quarters of the 12 million plague deaths recorded between 1896 and 1930 were in the three provinces of Punjab with 3.5 million recorded deaths, the United Provinces (formerly the North-Western Provinces) with 2.9 million, and Bombay with 2.4 million. Southern and eastern India escaped relatively lightly. 4

But the significance of the plague epidemic lay not merely in its demographic impact, formidable though that ultimately proved to be. The epidemic's political and social impact was felt long before plague mortality had reached its peak. Because of the manner in which it was perceived by the colonial authorities and the nature of the sanitary and medical measures deployed against it, bubonic plague provoked an unparalleled crisis in the history of state medicine in India. The significance of plague for the political epidemiology of colonial India was far greater than that of the concurrent epidemics of malaria or influenza, even though in any given year the mortality they caused might have been considerably greater. Plague, like smallpox and cholera, dramatically restated the centrality of epidemic disease to the colonial state medicine of the period; but it also emphasized the enormous differences in perceptions and responseindigenous and colonial alikebetween one epidemic disease and another. One illustration of these differences was the virtual absence of a plague deity, comparable to Sitala for smallpox or cholera's Ola Bibi.5 A likely explanation is that the state's plague operations often preceded the arrival of the disease itself and were far more distressing. It was the state's motives which provoked a crisis of comprehension, not the activities of an irate or capricious goddess.

The plague epidemic brought to the fore many of the issues that had underlain earlier debates about smallpox and cholera, while presenting them in a new and dramatic light. Plague posed important questions about the place of medical science and the authority of medical practitioners in the colonial order and about the political constraints on medical and sanitary intervention. By contrast with the location of disease within a pathogenic landscape earlier in the century, plague was specifically identified with the human body and thus

occasioned an unprecedented assault upon the body of the colonized. Much of the interventionist thrust of the state was directed at this epidemiological moment toward bodily apprehension and control, just as much of the Indian resistance to plague measures revolved around bodily evasion or concealment.

The exceptional degree to which colonial state power was exercised in the service of medicine during the plague epidemic raised questions about the nature and purposes of Western medicine in India and about its reception among Indians of different classes. The early years of the epidemic witness state medicine in uneasy transition from a defensive preoccupation with European interest and physical well-being to a broader, and as yet poorly defined, notion of public health.

A New Interventionism

Given the caution shown by the state during outbreaks of smallpox and cholera in recent years, the reluctance to provoke public opposition, and the unwillingness to spend more than was absolutely necessary on public health, it is at first glance surprising that in the late 1890s the colonial state launched itself into a series of far-reaching measures against an epidemic of plague which had barely established itself on the shores of India.

At first, it is true, the Bombay government and its medical advisers were loath to acknowledge the presence of so dreaded a disease. Suspicious cases with glandular swellings had been seen by local medical practitioners as early as May 1896, but unfamiliarity with the disease and problems of diagnosis contributed to the hesitancy and delay. Even when on October 1 the government was forced to admit to an outbreak of "true bubonic plague," it tried to minimize the impact of this disclosure by stressing that the disease was of a "mild" type. 6

But once the admission had been made, the Government of Bombay and the municipal authorities in Bombay city acted quickly and far more drastically than if they had been confronted by yet another outbreak of smallpox or cholera. On October 6, 1896, an official notification extended the already considerable powers entrusted to Bombay's municipal commissioner under the Municipal Act of 1888, authorizing the enforced segregation and hospitalization of suspected plague cases and municipal health officers' right of entry into infected

buildings. The municipality simultaneously embarked on a massive, almost comically thorough, campaign of urban cleansing, flushing out drains and sewers with oceans of seawater and carbolic, scouring out scores of shops and grain

warehouses (in the vicinity of which many of the first cases had occurred), sprinkling disinfectant powder in alleyways and tenements (spending more than Rs 100,000 on disinfectant alone by the end of March 1897), and, more tragically, destroying several hundred slum dwellings in the hope of extirpating the disease before it could fully establish itself. 7

But, finding these measures ineffectual in checking the spread of plague from one ward of the city to another and faced with the prospect of the epidemic spreading into the hinterland of Bombay, on February 4, 1897, Lord Elgin gave his viceregal assent to "An Act to Provide for the Better Prevention of the Spread of Dangerous Epidemic Disease," a piece of legislation which had been rushed through his council with exceptional speed and with a minimum of debate or consultation. The act, which applied to the whole of British India and took immediate effect, gave the government powers to inspect any ship or intending passenger; to detain and segregate plague suspects; to destroy infected property; search, disinfect, evacuate, open up for ventilation, or simply demolish any dwelling thought to harbor plague; to prohibit fairs and pilgrimages; to examine and detain road and rail travelersin short, to do whatever medical and official opinion held to be necessary for the suppression of plague.8 In Bombay, Pune, Karachi, and Calcutta, responsibility for health and sanitation was taken away from the municipal councils to which it had been entrusted since the 1880s and given instead to small committees of European doctors and civil servants.

In practice, even if not in declared intent, Indian opinion was brusquely brushed aside. Caste and religion were afforded scant recognition except as "superstitious" obstacles to the implementation of essential and scientific sanitary operations. A proclamation issued by P. C. H. Snow, Bombay's municipal commissioner, on October 6, 1896, announced that all plague cases would be hospitalized, by force if necessary. It was not explained that relatives would be permitted to visit the sick, nor that the requirements of caste would be respected in hospital arrangements. A directive from Bombay's surgeon-general two months later, on December 12, openly stated that while caste "prejudices" should be observed as far as possible, they could not

be allowed to stand in the way of essential sanitary and medical measures. 9

What, then, lay behind this unwonted urgency and the far-reaching nature of the state's plague operations? Interventionism was triggered by a combination of domestic and external pressures, by political as well as medical considerations. One factor, as I. J. Catanach has recently indicated,10 was that the British authorities felt themselves under irresistible international pressure to deal promptly and effectively with plague. Fearing that this disease, like cholera before it, would spread from India to the rest of the world and invade Europe itself, other Western powers threatened an embargo on trade with India unless stringent measures were taken to suppress plague and prevent its transmission to Europe. Strict controls over the movement of sea and rail passengers were, therefore, thought to be absolutely essential if commercial relations with the rest of the world, "on which in the present circumstances of India so much depends," were to be fully maintained.11 Muslim pilgrimage from (or via) Bombay and Karachi to Jeddah and the exodus of migrant labor to eastern and southern Africa also touched areas of imperial as well as European concern.

In a sense, the ground was already well prepared for such an emergency. The international sanitary conferences that had been held since the 1850s to discuss the threat "Asiatic cholera" posed to Europe provided a ready forum for international action against plague. The tenth such conference, meeting in Venice in February-March 1897, pressed the Government of India to take immediate action and even detailed the kinds of stringent measures that needed to be taken if Indian ports were not to be closed to foreign shipping. Similarly, the regulation of Indian shipping and pilgrim traffic introduced by the Government of India, most recently under the Pilgrim Ships Act of 1895, already provided for the shipboard inspection of travelers. On February 20, 1897, the Government of India went a step further and formally suspended pilgrimage to Hedjaz for the current season, and these restrictions continued intermittently for several years.12

Without this international pressure and threat to its overseas trade, the Government of India would have been far more reticent and unlikely to have adopted such draconian measures. Plague had apparently been present in northern India earlier in the century with-

out such extreme measures ever having been considered. 13 It was significant that plague was seen in 1896-97 to be an

invading disease (it probably arrived by ship from Hong Kong, where an epidemic had been raging since 1894, though some experts favored a Middle Eastern origin). Unlike cholera, it was not a disease that had originated in India and that, by the 1890s, had long been accepted as part of the epidemiological landscape. As Pune's Municipal Council remarked a little wearily in June 1897, "cholera is what Indian towns are accustomed to."14

A second factor behind the extreme measures taken against plague in 1896-97 was that the epidemic precipitated, or perhaps exemplified, a growing crisis of urban control. Cities, especially port cities like Bombay, Karachi, and Calcutta, were the central nodes of colonial power in India. Politically, they represented colonialism in its most visible and tangible forms; commercially and administratively, they were the hub of British enterprise and authority; socially, they were the areas where Europeans were concentrated and where Indian and European life-styles most critically, often most antagonistically, intersected. In these urban arenas, plague posed a composite threat. Of immediate European and governmental concern was trade and hence the prosperity of not only Bombay but also Calcutta, still proudly the first city of Britain's empire in Asia. Indeed, one impetus behind the Epidemic Diseases Act was to protect Calcutta from infection by Bombay, given the close commercial and administrative ties between the two cities.15 The threat to Bombay's own trade and industry came from the alarm felt among the city's trading communities and the prospect that they would flee to escape both plague and the attempts of the municipal authorities to bring the epidemic under control. Alarm spread rapidly, too, to the city's millhands and municipal scavengers, whose flight, it was feared, would bring the city to a standstill in a matter of days.

In his report on the early plague months in Bombay, Snow, the municipal commissioner, dramatically recounted the effects which a scavengers' strike and mass exodus would have on the running of the city. Before the epidemic, he pointed out, Bombay had been praised by sanitary experts as "the best kept and most sanitary oriental town" they had seen, but its continued well-being relied upon the daily labor of six thousand sweepersHalalkhors from Gujarat and Marathispeaking Bigarris, mainly Mahars. "On their presence or absence, re-

spectively," Snow remarked, "depended the safety or ruin of this vast and important City." Since it would be difficult to find any alternative supply of scavengers to keep Bombay in sanitary order, "on these men and their good-will hung the carrying out of every sanitary measure, and even in ordinary times were they all to remove from the town for a fortnight, Bombay would be converted into a vast dunghill of putrescent ordure." There had been strikes in the past; now, Snow feared, if they struck work or fled, "half the inhabitants would speedily follow them, and no single measure could be adopted against the plague either then or thereafter, nor could even the Europeans, Parsis, and high caste natives have remained in the City." 16

Snow could be suspected of melodramatic exaggeration, but, in fact, out of a population of nearly 850,000, an estimated 380,000 people deserted the city between early October 1896 and the end of February 1897, bringing the commercial and industrial life of India's second largest city almost to a standstill. At the height of the plague exodus, only a fifth of Bombay's millhands remained at work.17 Calcutta was to experience a similar, if briefer, exodus, in April 1898, when possibly a quarter of the city's residents fled their homes. Ironically, there, too, flight was precipitated more by the threat of plague operations than by the advent of the epidemic itself.18

Quite apart from the commercial loss that would result from their departure, the millhands added a further dimension to the difficulties of urban management in Bombay. To Snow and the city's commissioner of police, they had become an "ever-present source of danger,"19 evidence of the growing turbulence of urban life in Bombay, Calcutta, and other big cities in the wake of industrial development. Their violenceagainst hospitals, medical staff, and government servantswas influential in escalating the plague crisis in several cities and increasing official sensitivity to popular protest. It was only when the immediate urban crisis had passed and plague had become more widely established in rural areas that the severity of plague measures declined.

It is worth noting that a fear for Europeans' own health and survival did not, in itself, play a particularly important part in inspiring the government's plague measures. By contrast with cholera or typhoid, plague was not a disease that posed much of a threat to European life, though at first there was some uncertainty on this score. A suspected case of plague in a European youth in Calcutta in

October 1896 hastened the formation of a plague committee there, and special cordons were subsequently set up to protect Simla and other European hill stations. 20 But remarkably few Europeans caught the disease and fatalities were extremely rare. This apparent immunity contributed to the popular belief that Europeans were deliberately spreading plague in order to kill off unwanted Indians. Plague was more an inconvenience than a threat to Europeansas when domestic servants joined in the flight from Bombay and Calcutta or when their *ayahs* were subjected to medical examinations from which Europeans were themselves exempt.21

More influential in impelling state intervention was the role of the medical profession. In keeping with their accustomed responsibilities as the principal agents and overseers of the British administration in India, members of the Indian Civil Service were entrusted with overall control of plague operations. One exception to this was in Bombay, where Municipal Commissioner Snow, an ICS officer, was replaced in March 1897 by a plague committee headed by Brigadier-General W. F. Gather, partly because troops were by then being used in plague operations in the city and also because it was thought that an army officer would bring military efficiency and determination to a hitherto ineffective, civilian-led sanitary campaign. In Calcutta a special committee was formed in October 1896 under H. H. Risky, secretary of the Financial and Municipal Department, and in Pun the plague committee was headed by another ICS officer, W. C. Rand. It might thus be argued, as I. J. Catanach has done, that "plague was seen as too important a matter to be left in the hands of doctors."22

But while the overall authority of the ICS was duly preserved, it is striking how much state policy relied upon medical opinion and personnel during the early months of the plague epidemic. Its medical advisers had initially assured the Government of India that plague would not reach India from Hong Kong and, once it had, that it would not spread much beyond its point of arrival. When both of these assertions proved false, the government still trusted in the claim, made by Surgeon-Major J. Cleghorn as director-general of the IMS, that plague could be effectively contained provided the necessary measures, including the evacuation of inhabitants from infected areas and segregation of suspected plague cases, were rigorously carried out. Cleghorn also assured the government that plague was

"only slightly, if at all, either contagious or infectious in the common acceptation of those terms." 23

Although civilian administrators took the lead in implementing plague measures in Bombay, Calcutta, Pune, and Karachi, they were advised and assisted by committees consisting largely of senior medical officers. Risley's "medical board" in Calcutta, for instance, included the inspector-general of civil hospitals, the provincial sanitary commissioner and his deputy, as well as an Indian doctor, Mahendra Lal Sarkar.24 As Catanach notes, Rand in Pune was greatly influenced by Surgeon-Captain W. W. O. Beveridge of the Army Medical Service, and it was Beveridge who in February 1897 recommended (on the basis of his recent experience of the Hong Kong epidemic) the adoption of extreme measures to curb the spread of plague, including the use of troops to search out plague suspects. The resulting measures, Rand later observed, were "perhaps the most drastic that had ever been taken in British India to stamp out an epidemic."25

Confronted with apparently unequivocal medical advice, ICS officers struggled to translate the new bacteriology of Pasteur and Koch into the more familiar language of administrative command. In attempting to explain why, despite opposition, segregation and hospitalization were necessary in Calcutta, Risley declared in October 1896 that "the whole question turned upon modern bacteriological researches which were extremely puzzling and difficult." He could only inform his audience that "the nature of the [plague] microbe was such that it was highly portable" and "so infinitesimal and so long lived" that it "might come from Bombay at any moment, and propagate infinitely."26 Given the difficulty of identifying plague in its early stages and local unfamiliarity with the disease, the administration was dependent on the advice of experts like Waldemar Haffkine in Bombay for confirmation that it was indeed bubonic plague that was laying siege to its cities.27

Never before in British India had medical science and the medical profession been afforded such administrative authority and been placed in a position to exercise it with such apparent freedom. This in turn reflected a newfound confidence, by no means confined to India, in the capacity of medical science to understand and combat epidemic disease and the willingness of colonial governments, in Africa as in Asia, to listen to the advice of its medical and sanitary experts in

tackling plague, sleeping sickness, yellow fever, and malaria, often on a scale even more massive and sustained than the plague operations in India. 28

At this stage, however, in 1896-98, the etiology of plague was barely understood. The role of rats in its transmission was sometimes speculated upon, if only because their death was such a visible and perturbing sign of impending human tragedy, but rodents were still largely thought of as fellow victims rather than probable disseminators of the disease. The part played by rats' fleas was not conclusively established until around 1908, partly through the research conducted by Glen Listen and W. B. Bannerman in India.29 Thus, the human body and the conditions of human habitation and sanitation were thought in the 1890s to be primary factors in the spread of the disease. In its report on plague operations in Bombay in 1896-97, Gatacre's committee reported that something more than mere contagion appeared to be necessary for the transmission of plague and suggested that this was "most probably overcrowding, destitution, deficient cubic space, ventilation, and sun-light, and a filthy and generally insanitary condition of person, clothing, habitation, and its surroundings"of which, not surprisingly, they found an abundance in the poorer quarters of Bombay.30

In a summary of current medical opinion and administrative experience prepared for the Government of India in 1898, it was similarly stated that "the primary danger exists in the sick person and his surroundings, his clothing and bedding and other objects that may have been in contact with him, and the room in which he has resided."31 That human agency, and not merely destitution and dirt, was important to the transmission of plague was suggested by the way in which plague often appeared to move with Banias, Marwaris, and other members of the trading classes. The 1897-98 report of the Bombay Plague Committee commented:

> Banias took the Plague to the Deccan, where it is known as the Marwadi sickness. They carried it to parts of Khandesh, where it is called the Bania disease. Hindu traders, mostly Gujaratis, conveyed the disease to Karachi in November 1896, and to Mandvi in Cutch in April 1897. The Bania is the Plague spreader partly, perhaps mainly, because the Bania is the chief traveller.32

The perceived centrality of the human body as plague's source and vehicle was given further emphasis by the difficulty experienced in identifying the disease. It was necessary to physically examine the body to find the characteristic buboes, or swellings; but even a high temperature and glandular swellings might not provide conclusive proof. Many experts, especially in Britain, claimed that postmortems were the only reliable guide. The human body was thus both the presumed vector of the disease and the bearer of its essential diagnostical signs.

It followed that government plague measures concentrated upon the interception, examination, and confinement of the body. This entailed a form of direct medical intervention thatat least until opposition became too troublesome to ignoreswept aside the rival or preferential claims of relatives and friends, of *vaidyas* and *hakims*, religious and caste leaders. The body was treated as a secular object, almost as state property, not as sacred territory; as an individual entity, not as an integral part of a wider community. The body, moreover, was exposed not just to the "gaze" of the Western medical practitioner but also to his physical touch, an intrusion of the greatest concern to a society in which touch connoted possession or pollution.

Assault On The Body

Unprecedented in character and scale, the measures adopted to combat epidemic plague in 1896-98 provoked the greatest upsurge of public resistance to Western medicine and sanitation that nineteenth-century India had witnessed. To judge by the reactions of the Indian press and by official accounts of the riots and disturbances that followed, as well as by the rumors that circulated, the early plague years represented a profound crisis for Western medicine and for the power of the colonial state. The plague episode, even more than the history of smallpox and cholera measures before it, seems to present, almost paradigmatically, a tale of alienation and resistance. The rapid growth of the English and vernacular press in India in the late nineteenth century allows us, moreover, unprecedented access to contemporary attitudes. The character of Indian responses to the antiplague measures suggests how alien and malevolent' Western medicine still remained in

many Indians' eyes, even in the closing years of a century of growing state intervention and increasing, if

gradual, dissemination of Western medical and sanitary ideas. In fact, as will be argued later in this chapter and the next, reaction to the plague measures was more complicated and equivocal than a simple paradigm of resistance would suggest. Nonetheless, the nature of this hostile reaction is too importantto the evolution of state medicine in India, to the history of subaltern protest and middle-class hegemonyto be passed over in silence.

In the first weeks of the plague epidemic in Bombay, the Indian press criticized the provincial government for its apparent inertia and its reluctance to recognize the dangers plague might pose for the welfare of the people of Bombay. The English-language newspaper the *Mahratta*, run by the Pune politician and nationalist leader Bal Gangadhar Tilak, took a characteristically adversarial stance, accusing the government in December 1896 of "criminal indifference" toward plague. 33 However, as the government swung around to a more active and interventionist policy, the Indian press began to express grave doubts about the effects of the new measures and the extent of the coercive power that had been unleashed. In Calcutta, *Bangavasi* remarked that a "law more dangerous and drastic than the Plague Act was never before enacted in this country."34 The *Mahratta*, at first favorably disposed toward the Epidemic Diseases Act, was soon protesting, especially in regard to plague operations in Pune, that no measure undertaken by the British in India had "interfered so largely and in such a systematic way with the domestic, social and religious habits of the people."35

This view was shared by many vernacular and Indian-owned English-language newspapers in the Bombay Presidency. As early as October 1896, the press protested over the segregation of plague suspects and voiced a general repugnance at the way in which hospitalization was being carried out. "Rightly or wrongly," wrote the *Gujarati* of Bombay, "the feeling of the Native community is strongly against segregation." It argued that social customs, religious sentiments, and "the strong natural ties of affection" were all against it. "The very idea of tearing off one's dear relative from those affectionately devoted to him and of his departing from the world without the usual religious ministrations is revolting to the mind of the Native community."36 A petition from the leading Indian residents of Bombay to the Municipal Commissioner on October 14 expressed a similar view37 and, along with fear that the sweepers would strike or leave

the city, was a factor in persuading Snow to moderate his measures. Nonetheless, the introduction of the Epidemic Diseases Act and the appointment of special plague committees in Bombay and Pune sparked renewed protests at the "indifference and callousness" of the colonial administration and the "enormities committed in the name of sanitary science." 38

In explaining the extreme unpopularity of hospitals, the *Mahratta* pointed in November 1897 to the difficulty patients experienced in keeping in touch with their families:

> The relatives of the sick man find it extremely difficult even to send word to him, not to speak of approaching him and assuaging his distress by loving attendance and affectionate words. As for attendance and nursing, how effective they might be can well be imagined from the fact that the hospital servants are at best mere strangers, invariably callous and patent mercenaries, and that the sick man, once within the hospital compound, is almost cut off from his private resources.39

In Western eyes, a sanitized and healing environmentGatacre's committee claimed that a plague hospital was one of the safest places to be during an epidemic40the hospital was to many Indians (not least to the higher castes) a place of pollution, contaminated by blood and feces, inimical to caste, religion, and purdah. In April 1897 the *Kesari* (a Marathi paper also run by Tilak) carried the story of a Brahmin who had been forced to live on milk while in hospital because the food he was offered had been polluted by being served by a Sudra. Six weeks later the *Mahratta* complained that caste observances were being violated in Pune's general hospital and protested against the threatened closure of the Hindu Plague Hospital, where, it said, caste had been scrupulously respected.41 Opposition to state medicine was particularly strong among those Indians who saw in plague a form of divine retribution, a visitation against which medical and sanitary measures were either useless or impious. "We will not go to hospital," declared one young Muslim in Bombay in December 1896. "Our Musjid [mosque] is our hospital."42

Although opposition to segregation and hospitalization was commonly expressed in the idiom of male pollution and deprivation, it was the examination and seizure of women and their removal to segregation camps and hospitals that provoked the fiercest resistance

and the most vehement opposition. Objections were made on these grounds in Calcutta even during the first discussion of plague measures in October 1896. N. Mukherjee, chairman of the Calcutta Corporation, warned Risley that "people would prefer to die of the plague rather than consent or submit to the removal of their mothers, wives, daughters or sisters to hospital" and that, for this reason, Indian municipal councilors were unlikely to support such procedures. 43 In Bombay in March 1897 a Kazi spoke for many Muslims when he demanded in anger, "How could a husband be expected to tolerate the sight of his wife's hand being in the hand of another man?"44

Such strength of feeling lay behind several violent episodes in the early plague years. Nearly a thousand millhands attacked Bombay's Arthur Road Infectious Diseases Hospital on October 29, 1896, after a woman worker had been taken there as a plague suspectan incident which Snow took to signify general dissent from the policy of segregation and hospitalization.45 Again, on March 9, 1898, Julaha Muslim weavers in Bombay prevented the removal to hospital of a twelve-year-old girl suspected of having plague. A magistrate was wounded in the resulting fracas, and hospitals and other buildings were attacked and set on fire.46 At Kanpur (Cawnpore) on April 11, 1900, an attack on the local segregation camp by Chamars, millhands, and butchers was provoked by reports of women being detained there against their will.47

The physical examination of travelers and the residents of plague-struck towns and cities also spread alarm and opposition. Because most doctors were male as well as while, their touch was considered polluting or, worse, as tantamount to sexual molestation. This was especially so when, in searching for the bodily signs of plague, doctors tried to examine women's necks, thighs, and armpits. A Sholapur paper, *Kalpataru*, protested in October 1897 that "Native feeling" was "most touchy" on this issue: "Native ladies will prefer death to the humiliation of having their groins examined by male doctors who are utter strangers to them." It saw the appointment of women doctors as the only possible solution.48

When the examination of rail passengers began in February 1897, it drew an immediately hostile response. *Gurakhi*, another Marathi paper, angrily denounced the examination of women passengers at Kalyan, a major junction on the lines linking Bombay with Pune,

north India, and Calcutta. "That a female should be publicly asked by a male stranger to remove the end of her sari [from the upper half of her body]," it protested, "is most insulting and likely to result in loss of life. "49 Passengers traveling to Calcutta via Khana Junction on the East India Railway were subjected to a similar ordeal. Forced to alight from the train, they were separated into two queuesone for men, the other for womenand made to wait until they were examined, in full public view, by a European doctor. It was only after an outcry in the press had shown the strength of Indian feeling that screens were provided and a few women doctors were found to examine female passengers. But the basic resentment remained. As Moradabad's *Nizam-ul-Mulk* put it in April 1900, "The very sight of plague doctors at the railway station curdles the blood of passengers."50 The examination of women on the streets of Pune, as much as the frequent and keenly resented house searches, fed mounting indignation in the city and helped provoke the assassination of W. C. Rand, chairman of the Plague Committee, on June 22, 1897.51

The physical manhandling of Indians as if they were "mere beasts and as such not entitled to any belief or sympathy,"52 was made all the more offensive by the use of troops, especially British troops, in Pune and Bombay to carry out house searches. This inevitably invited hostile comparisons with military conquest and occupation.53 The citizens of Pune, who with some justification felt that they had been singled out for "special treatment," saw the use of soldiers as a crude attempt to punish or intimidate a city which had become notorious for its anticolonial opposition.

But the use of these "white bulls" had a further connotation. In recent years British soldiers had been involved in a series

of racial incidents in which women had been molested and raped, villagers had been beaten, even shot at, by soldiers out on hunting expeditions. On one pretext or anotherfor example, mistaking a villager for a wild beastthe soldiers received only negligible punishments in the courts, a travesty the Indian press bitterly resented.54 Using nearly a thousand British soldiers to conduct house searches in Pune thus smacked of either gross insensitivity or deliberate provocation. Reports of sexual harassment, insult, and abuse by British troops soon began to circulate in the city.55 It did not escape comment that when white men or women were attacked, Europeans took a very different attitude. *Moda Vritt*, a Marathi paper, wondered how Indians could

be expected to feel grief at Rand's death when Europeans went unpunished for "taking the lives of helpless Natives under the impression that they are monkeys, crows and bears." 56

Nor was the living body alone subjected to insults and indignities. The examination and disposal of corpses figured prominently in early plague policy. According to Bengal's plague committee in a memorandum of mid-1897, a "plague corpse is a focus of infection." It followed, then, that "all religious rites and ceremonies [relating to the dead] should . . . be curtailed as much as possible."57 In August 1897 the secretary of state for India, under pressure from medical opinion in Britain, urged that a systematic policy of corpse inspection be instituted as the best means of countering deficient plague registration and as a cheek to the further spread of the disease.58 Opinion in India was more equivocal. Civilian administrators were well aware that the issue was extremely sensitive and that corpse inspection was, as Lord Elgin noted in August 1897, "likely to produce great irritation" among Indians of all classes, or as the Bombay Plague Committee put it, "the possible advantages from the practice are outweighed by the certainty of discontent."59

The truth of this was amply demonstrated. In October 1896 William Simpson, Calcutta's health officer, caused great indignation by insisting on examining (and taking a sample of blood from) the body of a zenana woman who had reputedly died of mumps, but whom he suspected of having died of plague. "If this is not highhandedness," roared *Hitavadi*, "nothing is. Let the town be cleansed by all means, but let there be no oppression in the name of sanitation."60 In the Bombay Presidency it was decreed that bodies could not be buried or cremated until they had been inspected by a qualified doctor to ascertain whether plague had been the cause of death. With scores of deaths occurring daily and few qualified doctors available to inspect the bodies, this might entail a delay of many hours before funeral rites could proceed. Twelve, even twenty-four, hours might elapse, complained the *Mahratta* in June 1897, before permission could be obtained for a burial or cremation, even though the "detention of dead bodies in houses for such a long time is condemned both by religion and the science of sanitation."61 Reports of the government's decision to order the inspection of all corpses was sufficient to create widespread unrest in the Bombay Presidency in March 1898, especially among Muslims. It fueled the riot in Bombay city on March

9, while at Hubli in the south of the province a meeting at the Jama Masjid on March 11 vowed that if any Muslim died from whatever cause, plague or not, "every Muhammadan must collect near the dead body and not allow it to be inspected by the medical officer, nor touched by him, because his touch would defile the corpse." If the doctor tried to persist with his examination, "he should not be allowed to do so even though our lives are sacrificed." 62

Postmortem examination of suspected plague victims was also fiercely opposed. The practice had to be stopped at Jawalpur, near Hardwar in the North-Western Provinces, after an attack on the plague camp there on March 30, 1898, had drawn officials' attention to the strength of public feeling against it.63 Interference with customary funeral rites and practiceswhich in the Bombay Presidency in 1897-98 included the closure of overcrowded cemeteries and a requirement that plague corpses be wrapped in a sheet soaked in perchloride of lime or covered with quicklimegave rise to several demonstrations of defiance. At the town of Rander in Surat district on March 9, 1897, an order from the assistant collector directing that a plague corpse be taken to a mosque on the outskirts of town attended by no more than fifteen mourners was openly defied. Some three thousand Muslims accompanied the body to the central mosque for the final prayers to be said over it.64

The search for plague cases and corpses in Bombay and Pune encountered not only outright resistance but also, more

commonly, evasion and concealment. The sick, whether suffering from plague or any other disease that might be mistaken for it, were smuggled out to areas free from search parties or hidden in lofts, inside cupboards, under furniture, or in secret rooms. Corpses were buried clandestinely, sometimes within the house or compound. The British were dismayed that even as "Westernized" a community as the Parsis should resort to such evasion and subterfuge.65

Such assaults on the body were not, to be sure, the only cause of opposition to the government's antiplague measures. There was concern, too, for the loss of property and possessions destroyed or pilfered during plague operations. For the poor, hospitalization and segregation meant the loss of wages, possibly of a job. Merchants were resentful of restrictions placed upon their freedom of movement by searches and cordons as well as of the destruction of their grain, cloth, and other goods.66 Banias and Marwaris, often cited in official

reports as agents in the transmission of plague and often among its first victims in a locality, were also among those most resolutely opposed to plague measures, as they were to smallpox vaccination as well. Indeed, they were suspected of deliberately spreading hostile rumors and false reports in order to excite public opposition. Bania resistance might be as influential in its way as that of the subaltern classes. But it was still the actual, threatened, or imagined assault on the body that aroused the greatest fear and anger in the early plague years. And it was this collective fear and anger that found forceful expression in rumor.

Plague Rumors

Rumor flourished in the atmosphere of uncertainty and alarm generated by plague and, even more, by colonial intervention against it. There are, though, many difficulties in the way of trying to interpret plague rumors as a species of popular discourse. As they have come down to us, the rumors are far from being an uncontaminated source. They were often written down and printedin the press, in official reports, and memoirsspecifically in order to show the absurdity and naive credulity of the masses, to prove (as one newspaper put it) that "King Mob" was "impervious to reason" or, as Snow averred in Bombay, that the public had been seized by "a wild, unreasoning panic." 67 The wilder the rumor, the better it suited this purpose, the more eloquently it betrayed the part irrational prejudice played in turning the people against operations intended for their own health and security.

Not all rumors were an unalloyed product of the subaltern classes, nor did they circulate exclusively among them. In his report on the Calcutta plague, J. N. Cook, the city's health officer, noted rather despairingly in 1898 that it was "extraordinary how natives occupying a respectable position gave credence to the wildest and most improbable stories."68 It would also be rash to discount altogether as colonial myth or middle-class prejudice the suggestion made, especially at the time of the Calcutta plague disturbances in May 1898, that some rumors were "set in circulation by badmashes [villains] with the object of frightening people and getting an opportunity of looting them."69*Vaidyas* and *hakims* were also suspectedon what evidence is not clearof spreading alarm in order to discredit Western medicine and promote their own rival practice.70 But, caveats aside,

rumors take us closer to popular perceptions and responses than other sources allow.

One striking feature of the plague rumors, in seeming contrast to many other examples of this form of popular discourse in India, was their preoccupation with the body. It is true that rumors were sometimes of a more general nature. There were, for instance, reports of "absurd rumours" that "the intention of Government was to interfere with the religion and caste of the people" and "to destroy caste and religious observances, with the ultimate design of forcing Christianity on the natives of India." 71 At the time of the Kanpur riot in April 1900, it was said that "the wildest rumours of impending danger to Hindu and Musalman alike" were in circulation.72 But the overwhelming concern of the majority of reported rumors was with an assault on the body, whether by poisoning, dissection, or other means. The principal themes were these:

1. *Poisoning*. Commonest of all rumors were those relating to the deliberate poisoning of Indians by doctors, hospital

staff, and inoculators. One of the first reports to this effect was carried by the *Mahratta* on November 1, 1896, in connection with Bombay city. The *Kesari* of February 16, 1897, also referred to rumors of the "systematic poisoning" of hospital patients. A fuller and more elaborate version was given in the *Poona Vaibhar* in February 1897, which reported that:

> In some villages the people have come to think that the Sarkar [government], finding its subjects unmanageable, is devising means to reduce their number. They say that it mixes poison in opium. They even hesitate to accept the dole of bread distributed in the famine camps under the belief that poison is mixed with the bread. They think that the hospitals are now under the management of new doctors who put poison into the medicines.73

In other versions it was the village well or the municipal water supply that had been poisoned; such rumors were rife in northern India in 1900. The *Hindustan* of Kalakankar referred to rumors "to the effect that plague patients are poisoned by doctors, that the waterworks supply has been poisoned by Government to kill the people, and that six bags of snakes and other worms have been ground [up]

and dissolved in the water-pipe at Cawnpore to bring on plague among consumers." 74 In the Lahore district of Punjab two years later it was said that the Sirkar had hired the "daktari log" [the doctors] to kill off India's surplus population, and there was "a very widespread impression that doctors or doctors in disguise were going about putting poison in wells."75

2. *Cutting up the body: extracting 'momiai.* A second cluster of rumors concerned the cutting up of bodies, especially in hospitals. A correspondent of the *Mahratta* in December 1896 reported that a man who was told he had plague and would be taken to Pune's Sassoon Hospital said he might as well have his throat cut straightaway. The writer explained that "all the natives have an idea that they are taken to the Hospital and killed in order that the doctors may cut them up." The paper's editor confirmed that hospitals were seen by some Indians as being "so many slaughter-houses for the benefit of human vivisectionists."76 Similar rumors were evidently circulating in Bombay in October 1896. Snow referred to a "foul brood of fantastical horrors" among which were "extraordinary rumours that the hospitals were torture-chambers and death-traps."77 After the millhands' attack on the Arthur Road Hospital, *Kaiser-e-Hind* explained that the workers believed that there was "something diabolical" about a hospital "which claimed so many victims." Patients, it was said, were bled to death through the soles of their feet: the hospital was "the very incarnation of the Devil, and the Devil was to be exorcised at all costs and at all hazards."78

The purpose behind hospitalization was sometimes seen to be the extraction of an essential oil or balm known as *momiai*.79 Enthoven attributed the flight of thousands of mill workers from Bombay in October 1896 to the fear that "officials were seizing men and boys with the intention of hanging them head downwards over a slow fire and preparing a medicine drawn from the head."80 According to F. S. P. Lely, residents of Bulsar in Gujarat would not pass along the road in front of the local hospital because it was "universally believed, or at any rate said, that an oil mill was under every bed to grind the patient into ointment for use on European patients in Bombay."81 A boatman near Bilimora told another official that the plague inspection shed at the nearby railway station contained a "big machine" for squeezing oil out of passengers' bodies. This sub-

stance was then sent to Bombay, where it was "put into other people, and then they get plague too." 82

3. *Seizing, searching, looting*. Rumors of this class partly overlap with those in the previous categories. They concern the powers said to have been entrusted to doctors, policemen, soldiers, and sanitary officers. In some instances they are barely exaggerated versions of the authority actually conferred upon such individuals. In November 1896 the *Indian Spectator* reported a rumor in Bombay that the police could dispatch anyone they chose to hospital, from which they would never emerge again alive.83 A common belief, again not without some foundation in reality, was that perfectly healthy men and women were seized and sent to hospitals and segregation camps. It was sometimes said that plague did not exist at all, but had been invented to enable low-paid government servants to plunder the people at will, or that doctors were deliberately spreading plague to drum up business for themselves. At the time of the Calcutta disturbances

of May 1898, the police were rumored to carry bottles of poison which they held to the noses of their victims unless bribed to desist.84

4. *Inoculation*. The introduction of Haffkine's antiplague serum in 1897-98 sparked off many rumors concerning its nature, purpose, and effectssome of which were elaborations of earlier fears about smallpox vaccination. Despite government denials, rumor was rife in Calcutta that inoculation would be (or had already been) made compulsory. This resulted in several attacks on Europeans and on Indians suspected of being inoculators in the city in May 1898: in one incident, an Austrian sailor drowned trying to escape his pursuers.85 The sudden appearance of a European accompanied by two policemen at a fair at Varanasi in May 1899 caused immediate speculation that he was an inoculator, and there was "a general stampede."86 Inoculation was feared because it reputedly caused "instantaneous death" or resulted in impotence and sterility.87 Inoculation rumors current in the Ambala district of Punjab in 1901-02 included these:

> The needle was a yard long; you died immediately after the operation; you survived the operation six months and then collapsed; men lost their virility and women became sterile; the Deputy Commissioner himself underwent the operation and expired half an hour afterwards in great agony.88

When inoculations were performed on Europeans or on prominent Indians without apparent ill effect, it was said that only rosewater had been used, the real poison being reserved for less-fortunate Indians. 89

5. *Collapse or weakness of British rule*. A rumor of this kind, which moved beyond immediate concern with the body, gave rise to a riot at the village of Chakalashi in the Kaira district of Gujarat in January 1898. According to the *Mahratta*, a local "fanatic" told the people that British rule was over. Lely's version of the story was that locals believed that "the British Empire had fallen in the country south of the Mahi, and that the plague cordon which had been drawn along that river [between British India and the princely state of Baroda] was really for the purpose of preventing the news from getting through to the north." By his account "a new kingdom was proclaimed and preparations made for selecting a Raja"until the police arrived and bloodshed followed.90

A related rumor, touching in another way upon the weakness of British power, circulated in northern India in 1900. This was to the effect that the British were spreading plague deliberately in order to discourage the Russians from invading India. This might be linked to other rumors current at the time about Russian advances into Afghanistan and Kashmir.91 It was said in Calcutta in 1898 that in order to save British India (from what is not clear), the viceroy had met a yogi in a remote place in the Himalayas "and made a compact with him to sacrifice 2 lakhs of lives to the Goddess Kali." The British were suspected of trying to keep this bargain by distributing poisonous white powders and black pills and by administering lethal injections.92

6. *General catastrophe*. A final group of rumors, or in some cases authored predictions (which thus stray beyond the realm of true rumor), concerned a spate of imminent disasters and calamities, of which plague and the famine then sweeping India were but precursors. An earthquake confidently predicted to occur in Delhi in January 1898 increased alarm over the anticipated imposition of plague measures.93 The month of Kartik in the Sambat year 1956 (November 1899) was expected to usher in an age of general affliction and catastrophe for India and the world.94 Plague was the harbinger of the great apocalypse.

What significance can we see in these plague rumors? They are

clear evidence of how widely and intensely the epidemic was discussed in India at the time and the fear and suspicion with which the state's measures were viewed. "The word plague," reported *Hindustan* in April 1899, "is even in the mouths of children." 95 On the eve of the April 1900 riot in Kanpur, the "plague administration, especially the segregation of the sick, became the common subject of conversation among the better classes of the city," and from them "anxiety gradually extended down to the masses of the people."96 On April 28, 1898, when Sir John Woodburn, the lieutenant-governor of Bengal, met doctors at the Eden Hospital to decide whether plague had reached Calcutta, rumor rapidly spread. By noon

> the excitement in the town was intense. In business houses and in bazaars, streets and bustees the question was discussed, had the dreaded Bombay plague come at last, were their houses going to be forcibly entered, and their wives and daughters torn away by British soldiers, was quarantine to be established, and were they all to be forcibly inoculated?97

In a situation where the government generally failed to take the people into its confidence, rumor had something of a predictive quality. It was an attempt to anticipate and explain what the government was up to, and people took the actionflight, evasion, resistancethat accordingly seemed most appropriate. In Calcutta in April-May 1898, as in Bombay in late 1896, thousands of people fled not just to avoid the plague but also to escape the measures the government seemed intent on imposing on them. Rumor informed action.

The contents of the rumors suggest two basic preoccupations. There was, first of all, a deep suspicion of the nature and methods of Western medicine. As the preceding chapters have shown, this feeling was by no means new. For much of the century, hospitals and such practices as vaccination and postmortems had given rise to fear, opposition, and anger. Some of the plague inoculation rumors, for example, bore a close resemblance to earlier rumors about vaccination. But such doubts and fears were given fresh intensity by the unprecedented scale of medical and sanitary intervention in 1896-1900, by the exceptionally coercive and comprehensive nature of the measures adopted, and by the way in which the body was singled out for attention.

Some of the rumors were garbled accounts of an unfamiliar medi-

cal technology: needles a yard long, toxic serums, hospitals that dissected the living as well as the dead. Perhaps even the rumor about snakes in the water supply had its origin in some health officer's slide show about cholera bacilli or other waterborne microbes. But as Indians became more familiar with Western medicine (partly as a re-suit of the sheer scale of medical intervention in the 1890s and 1900s) and as the more coercive plague measures were withdrawn (largely in response to popular protest), inoculation and hospitals lost much of their former terror. As fear abated, the rumors it had occasioned also began to die away.

But it was not only the nature and novelty of Western medical technology that set rumor flying. Plague, and still more the state measures deployed against it, were seen to have a deeper meaning and to reveal the underlying intentions of British rule. In this effort after meaning, rumor pasted together in a vivid collage aspects of the current crisisplague, hospitalization, segregation, inoculationalong with other disturbing or exciting scraps of news and gossipfamine, war, talk of overpopulation, growing opposition to British rule, Russian advances in Central Asia.

To outsiders it might appear that these fragments were utterly unrelated and were brought together in a completely random and bizarre fashion that showed nothing but the depth of popular ignorance and stupidity. And yet at the level of popular discourse, this association of ideas provided a partially coherent pattern of explanation. It seemed to explain what was otherwise difficult to account for: why, for example, were Europeans immune to the disease unless they had some part in its propagation? Underlying almost all the rumors was an assumption about British self-interest and spite, a readiness to torture Indians and sacrifice their lives in order to preserve British power. As one newspaper pointed out, the rumors gave no support to the idea of the raj as the *ma-bap* ("mother-father") of the people, "that it protects them and redresses their grievances," a belief the British liked to cite as evidence of the paternalistic popularity of their regime. 98 Even the viceroy appeared willing, by popular report, to kill off two hundred thousand inhabitants of Calcutta as the price of maintaining British rule. Here was no kindly czar, no benevolent white queen, to whom an oppressed people could appeal against the tyranny of their masters. European power appeared at this moment of crisis as a monolith, undivided in its malevolence. Such was the

apparent British contempt for the bodies and the beliefs of their Indian subjects that it seemed perfectly credible, not some extravagant fantasy, that they should poison wells, administer lethal injections, or grind up people for *momiai*.

It is possible to go a stage further in discussing the importance of rumor as a species of popular discourse. Some of the rumors voiced a suspicion not only of the British but also of those Indians who appeared to be their agents, allies, and collaborators. The rajas and notables who assisted the British in their plague operations or allowed themselves to be inoculated were seen as accomplices in an evil conspiracy to poison, pollute, and plunder. In Calcutta in May 1898, Bengali "topi-wallahs" (those who wore hats in the Western manner) became, along with Europeans, targets of popular violence and were attacked on suspicion of being inoculators or plague doctors. 99 Conversely, the popular credence given to plague rumors aroused antipathy in many middle-class Indians. Tilak, like many other newspaper editors and politicians at the time, and despite his vociferous opposition to the way in which plague operations were carried out in Pune and elsewhere, saw it as his duty as a "leader" to educate the public about Western medical and scientific ideas and to refute the wilder rumors about hospitalization and segregation. "It is true," commented an editorial in the *Mahratta* in March 1897,

> that the masses look upon plague as a providential visitation and have little faith in the efficacy of methods suggested by sanitary science. But because the masses are ignorant it is a mistake to suppose that the leaders and specially the educated classes do not appreciate the usefulness of modern sanitary measures.100

Certainly, Tilak and other newspaper editors were willing, if not actually to endorse public hostility against plague measures, at least to use the opportunity to show the unpopularity of British rule. But there was also real contempt, coupled at times with indignation and fear, in middle-class attitudes toward popular belief and action. The contemptuous language showered upon "ignorant rustics" and the "superstitious" beliefs of peasants and millhands, the criticism of their "filthy habits," and the contrast repeatedly drawn between the "intelligent" or "educated" classes on the one hand and the "foolish and illiterate" peasants on the other cannot have been for the censor's eye

alone. 101 This antipathy became even more pronounced when, as in Calcutta in May 1898, the "topi-wallahs" became the targets of popular violence. The editor of *Hitavadi*, previously one of the most outspoken critics of the government's plague policies, angrily decried the actions of the "badmashes" responsible for the attacks. "No one," he fumed, "has the right to kick up a row and create a disturbance."102 The followers of Ramakrishna in the city were more restrained but issued a statement calling for calm and urging the people not to be misled by "*canards* or bazaar gossip."103 The desire to lead and educate the "rough people" was partly grounded in a fear of their violent "irrationality."104

One final point about plague rumors and British reactions to them: rather like cholera and its association with Hindu pilgrimage in earlier decades, plague and the resistance to plague measures were identified by Europeans with the negative attributes of Indian society. Plague rumors were taken to be indicative of the difficulty of trying to implement an enlightened and rational medical policy in the face of such deep-rooted opposition. Plague rumors conveniently exemplified Indian apathy, fatalism, irrationality. In this way responsibility for the spread of plague, rather like smallpox and cholera before it, was shifted away from the colonial civil servants and doctors and onto Indians themselves. "Orientals," concluded Gatacre's committee in Bombay, were "most conservative," "wedded to many insanitary customs which have been inseparably connected with their life and prejudices for centuries."105 The Government of India's 1898 summary likewise remarked that "in India the customs and prejudices of the people offer a more or less important obstacle to the adoption of the measures which have been found best adapted to check the disease."106 Even when the first crisis was over, "fatalism" remained the characteristic most commonly ascribed to Indian attitudes toward plague and administrative attempts to curb its ravages.107

"Native Agency"

Plague provided a pretext for a second colonial assaulton the growing political assertiveness and leadership of the Indian middle classes. This was most evident in relation to the municipalities of Bombay, Calcutta, and Pune, where it merged with the growing crisis of urban control and where unprecedented powers were given to special plague committees. Of the three, Pune provides the most striking example.

Plague reached Pune, a city of some 160,000 people, toward the end of 1896. The earliest cases, recorded in October, were among plague refugees from Bombay; the first local cases followed in late December. Plague came to Pune at a time when the provincial government, headed by Lord Sandhurst, was already bent on humbling the city's political elite. Through the Poona Sarvajanik Sabha, the political organization founded in 1879, the city's Brahmins, including Tilak, had been persistent in their criticism of British policies, most recently in connection with the famine. If plague provided an opportunity for politicians to step up their attacks on the government, it also gave the administration a convenient excuse to strike back. Tilak was an obvious target. The Sivaji and Ganapati festivals, part of his attempt to promote a more assertive Hindu nationalism among the masses of Maharashtra, were banned in 1897 under the plague restrictions, and he was imprisoned for almost a year for his alleged part in provoking or plotting the assassination of W. C. Rand in June 1897. 108 But the government's counterthrust was not directed against Tilak alone. It was also aimed at the Pune municipal council, of which Tilak was also a member and which British officials saw as Brahmin dominated, politically suspect, and administratively inept.

The issue of the Pune municipality went back to 1885. Lord Reay, the governor of Bombay at the time, decided to meet the demands of the Poona Sarvajanik Sabha and of the municipal councilors themselves by liberalizing the composition of the council. Its membership was raised from twenty to thirty, with only ten government nominees, and the council was given the privilege of electing its own president. This "experiment" was justified as being in the spirit of the local self-government reforms initiated by the Liberal viceroy, Lord Ripon, in 1882 and as reflecting the presence of a "large and intelligent class of educated native gentlemen" in Pune.109

By 1898, however, after the new council had been in operation for a dozen years, European bureaucrats had unilaterally decided that Reay's "experiment" had proved a "conspicuous failure," and they seized upon the crisis caused by the advent of plague as further evidence of the council's ineptitude. In May 1897 R. A. Lamb, the collector of Pune, complained to his divisional commissioner, J. K. Spence, that the problems affecting Pune demonstrated what happened to health and sanitation in a large town when entrusted "entirely to native agency." Conservation and sanitation, "as we understand them," he said,

> are not congenial to the native temperament which prefers to regard the results of insanitation rather as visitations of God than as the inevitable consequence of dirt and filth being inadequately dealt with in thickly populated places. It follows from this habit of mind that sanitation and conservancy, if left wholly to natives, are imperfectly carried out.

Lamb saw this as a matter of particular concern in Pune because the "native" town lay perilously close to the civil lines"the residence of members of the Bombay Government for 4 months of the year"and to one of India's largest cantonments. 110 Spence's view was no less damning: "As long as conservancy and sanitation remain under native supervision and control they will remain a farce." A member of the Bombay Government Secretariat further minuted that "the plague has not only strengthened the hands of Govt. sufficiently to justify them before the world in interfering with Local Self-Govt. in the interests of sanitation," but had also "shown the need for this."111

In February 1897, shortly before Lamb wrote his scathing remarks, Rand took charge of plague operations in Pune. When he came to write his own report, just before his death in June 1897, he took a similarly disparaging view of how Indians had been running the city, especially its sanitary and medical services. The municipal councilors had, he said, allowed Pune to fall into a grossly insanitary state and done little to check the epidemic when it first appeared. They had shown want of resolution in enforcing hospitalization and segregation in the face of popular hostility and had appointed as health officer a young Brahmin, fresh out of college, who was "quite unfit for the place."112

Armed with extraordinary powers under the Epidemic Diseases Act, Rand was able to ignore the municipal council and set up his own three-man committee (known to the *Mahratta* as the "Plague Triumvirate") to run plague operations in the city more as they had been conducted in Hong Kong than as they were currently being carried out in Bombay.113 His use of European troops to conduct house searches was a clear affront to Pune's Indian elite. Lamb, who fully endorsed these measures, agreed with Rand and Beveridge that since British soldiers were "disciplined" they could be "relied on to be thorough and honest in their inspection," while "no native agency is available, or could be relied on if it were."114 The only role Rand allowed for "native gentlemen" was "to explain to the public the ob-

jects of the search, to act as interpreters between the soldiers and the public and to point out to the soldiers the portions of houses which custom forbade them to enter." 115 That few middle-class residents of Pune would come forward to take up such unpopular and demeaning work was seen by Rand and his committee as further evidence of the uselessness of "native agency." It followed, too, that sanitation in the city would have to remain under European control "for some time to come" if the gains which Rand believed had been made under his direction were not to be forfeited by a return to Indian management. It was conveniently overlooked that the municipal council's earlier attempts to tackle plague had been blocked or ignored by an unresponsive provincial government. 116

Rand's diatribes against "native agency," shared by other civil servants, such as Lamb, and sanitary officers like Beveridge and his successor, Surgeon-Major Barry,117 became the basis for a revision of the municipal council. In 1898 the number of nominated councilors was raised from ten to eighteen in order to strengthen official and European control.118 The irony, not lost on Indian critics, was that the measures so aggressively pursued by Rand and later by Barry, which exceeded those pursued almost everywhere else in India and for which such extravagant claims of success were made, failed to prevent the return of plague in October-November 1897 on a far greater scale than in the earlier months of the year.119 But although Pune was singled out for "special treatment," bureaucratic contempt for "native agency" was by no means confined to that city. In Calcutta, for instance, there were similar imputations of Indian incompetence, even cowardice, in the face of the plague crisis and there, too, the opportunity was seized to reorganize the municipal corporation, reducing the elected element and thereby weakening Indian control while strengthening the position of European civilian and sanitary officers.120

From Confrontation To Conciliation

While racial contempt and political revenge helped inspire the severity of early plague operations, especially in Pune, the political factor also acted, as the crisis deepened, as a constraint on British action, forcing a significant shift in state policy. By late 1897 and early 1898 the administration faced a dual crisis of control. Despite (perhaps be-

cause of) intensive operations in towns and cities, the epidemic had continued to spread and was now reaching Bengal, the NorthWestern Provinces, Punjab, and Hyderabad. Initial attempts to control plague had failed while mortality continued remorselessly to rise. The India Office and its medical advisers in London were pressing for more rigorous measures, including corpse inspection and strict segregation of plague suspects; and a resolution of the Government of India on February 3, 1898, bowing to this pressure, called for the full implementation of antiplague measures. 121

The resolution proved to be a watershed. There was mounting evidence of the unpopularity of plague measures, and several provincial governmentsBengal, the North-Western Provinces, and Punjabwere doubtful about the political wisdom of attempting to impose them in the face of such clear public opposition. The riot in Bombay in October 1896 was followed by a second in March 1898 and several smaller incidents. There were disturbances elsewhere in the province, including Sinnat in Nasik district in January 1898. In northern India there was rioting against house searches, segregation, and hospitalization at Jawalpur in March 1898, and at Garhshankar in Punjab in April. In the south there was an incident at Srirangapatnam near Mysore in November. But, occurring in the imperial capital itself, the Calcutta disturbances of May 1898 were perhaps the most disquieting of a troubled year. As one Punjab paper wryly commented, if rumors of poisoning doctors and lethal injections could find credence in an "enlightened" city like Calcutta, what hope could there be for plague operations in up-country towns and villages?122 Deputations of leading citizens, municipal councilors, caste and religious leaders, all urged provincial governments and local plague committees to show greater respect for Indian sentiment and custom while warning of greater opposition and bloodshed if their pleas were not heeded.123

If, administrators began to reason, plague operations could provoke such bitterness and resistance in Bombay and Bengal, what would happen when they were enforced against the Muslims and "martial races" of northern India?124 In February 1898, as if in confirmation of these doubts, anonymous placards appeared in Delhi which drew ominous comparisons with the Mutiny and Rebellion of 1857. One of these, prominently displayed in Chandni Chowk, the busiest

thoroughfare in the old city, warned that

> People are very much dissatisfied at the issue of notice with regard to the arrangements proposed to be made if bubonic plague breaks out. These would ruin their good name, respect and religion. Is that civilization? We caution Government to excuse us and not to adopt the procedure. We are quite prepared to sacrifice our lives for our religion and respect. We are ready to die. The notice will call emotion equal to that of 1857 Mutiny. 125

An anonymous "notice" sent to Delhi's deputy commissioner declared:

> God forbid that the plague may attack Delhi, but if it does, then the regulations circulated are harsh and unworkable, and the Delhi public shall not be able to carry them out . . . .
>
> As you are responsible for the good government of Delhi, please think over the regulations before putting them in force. The Governor undoubtedly relies on his force, and thinks that he shall have the orders complied with anyhow, but you might bear in mind that where money, women and land are concerned quarrels must ensue. When we will be turned out of the house and our faithful wives will be given over to the Doctors for treatment, there is not the slightest doubt that no Hindu or Muhammadan will sit quietly . . . .
>
> Please bear in mind that although we are poor and are a conquered race, the pure blood of nobility still flows in our veins. How can it be possible that we remain separate and our daughters and wives be in the custody of cruel Doctors?126

In such circumstances, the "absolute impossibility of fighting both the epidemic and the people" was becoming clear.127 In a letter to Lord Elgin on April 29, 1898, Sir Antony MacDonnell, lieutenant-governor of the North-Western Provinces, summed up many administrators' fears and reservations. He claimed that "success"by which he meant "not only the suppression of the disease, but the prevention of the spirit of discontent"could be attained only by "working through the people themselves." There must, he wrote, be a compromise. The well-to-do, especially the Muslims of the province, would not put up with "constant domiciliary visits, or the forcible removal of their sick to hospitals." A partial abandonment of isolation and segregation might result in the more rapid spread of plague, but

"in the present state of public feeling in the country," he saw "the danger of popular discontent and tumult to be a more serious evil than even the prolongation of the disease."

MacDonnell's letter also drew attention to other factors which militated against attempts to implement plague measures in northern India as rigorously as they had been in Bombay and Pune. One was the enormous cost involved, especially now that plague had spread beyond its urban footholds and was moving inexorably into the countryside. Also cause for concern were the opportunities for extortion and harassment created by the extensive use of police and medical subordinates. "This corruption," MacDonnell believed "was perhaps more oppressive to, and more resented by, the people than even the discomforts of isolation and segregation." 128 Distrust of "native agency" was thus not confined to the Indian elite but (as earlier with smallpox vaccination) extended to the state's own Indian subordinates as well.

The Government of India, at first loath to bow to such conciliatory pressures, was increasingly of the same mind and was beginning to be pushed in that direction by some of its own medical advisers. In an influential memorandum written in mid-April, R. Harvey, sanitary commissioner to the Government of India, acknowledged that "experience is beginning to show that, what is medically desirable may be practically impossible, and politically dangerous." Although such measures as segregation and corpse inspection were unassailable in theory, he wrote, in practice government policy had to acknowledge that the mass of the population in India was "suspicious of innovation, extremely conservative, very ignorant, full of prejudices and superstitions and of amazing credulity." To persist with such measures in the face of public opposition was to risk "grave trouble." Like MacDonnell, he urged a more cautious and conciliatory approach. "Compulsion should be abandoned as causing an amount of opposition which alienates the people and leads them to conspire to defeat our efforts." On the other hand, he argued, "every effort should be made to carry the people with us

and to induce them to agree spontaneously to the precautions which experience has shown to be useful." 129

By the middle months of 1898 many medical officers and civil servants were beginning to doubt that medicine and sanitation could provide the answers so confidently anticipated in late 1896 and early

1897. The flushing out of drains and sewers and the wholesale sprinkling of disinfecting powdersactivities so energetically pursued by Snow in the first months of plague in Bombayhad by now been largely forgotten, while policies more recently followedsuch as hospitalization, segregation, and corpse inspectionhad either run into fierce public opposition or themselves proved ineffective in halting the spread of the disease. Inoculation still held out some prospect of success. Haffkine, who had developed his own antiplague vaccine in Bombay, was convinced on the basis of his early trials that mass inoculation represented "the only measure known to Science up to now for combating that disease." Its value, he claimed, had been established "by accurate observations and measured in an unmistakable manner." 130 Haffkine had some support among younger members of the IMS, but the Government of India and Harvey, its sanitary commissioner and later surgeon-general, remained skeptical, arguing that Haffkine's serum had still to be perfected and that inoculation could not adequately replace evacuation and other sanitary measures.

There were many reasons why Haffkine did not receive a more sympathetic hearing from the colonial medical establishmenthe was a Russian, a bacteriologist, and a Jewbut (as with his anticholera vaccine) one influential objection was political rather than medical. Fears that inoculation would (or had already) become compulsory provoked rioting in Calcutta in May 1898 and seemed likely to meet a similarly hostile reception elsewhere. Political pragmatism dictated that it could only be introduced slowly, on a strictly voluntary basis, as part of a larger package of medical and sanitary measures. "The question," insisted Harvey, was "not one of theory, but of practical administrative experience." It was "idle" "to dream of an alien Government successfully imposing universal inoculation on the people of India.,"131

As a consequence of the resistance encountered and the resulting reappraisal of its political priorities and administrative limitations, the Government of India made a series of compromises and concessions in its plague policy in 1898-99. Central to these was the recognition that the use of force was counterproductive, provoking either outright opposition or forms of evasion that negated sanitary and medical measures to such an extent as to render them ineffective. The more coercive and unpopular aspects of plague administrationhouse and

body searches, compulsory segregation and hospitalization, corpse inspection, and the use of troopswere accordingly abandoned or greatly modified. One consequence of this shift away from compulsion was a greater reliance upon measures which the people were willing to take up for themselves and upon agencies (such as the hitherto despised *vaidyas* and *hakims*) whom they trusted. The temporary evacuation of villages was one method followed with some success because, it was now argued, once plague was in evidence, villagers were themselves willing to move. Another method was the cleansing and disinfecting of houses in ways that conformed to Indians' customary practices rather than Western medical dogmas. 132

While denying any intention to make inoculation compulsory, doctors and administrators made every effort to persuade people to accept immunization. In Punjab, where plague had begun to take a tight hold on the countryside as well as the towns, many thousands of inoculations were carried out in the early 1900s. In 1902 the declared aim of Sir Charles Rivaz, the incoming lieutenant-governor, was to rely upon inoculation as the main means of containing plague and to immunize at least two-thirds of the population. The campaign seemed to be gaining momentum when in October 1902 at Malkowal in Gujrat district an infected needle caused the death from tetanus of nineteen villagers. Unjustly, as was later proved, Haffkine's method of preparing the serum in his laboratory in Bombay (which had been altered to meet the enormous demands from Punjab) was blamed for the deaths. It was several years before Haffkine could clear his name, but the Malkowal incident not only cast a long shadow over his career but also rendered even more suspect in public and official eyes the policy of inoculation with which he had been so closely identified.133

A further important shift in state policy was the greater reliance now placed upon Indian intermediaries and "leading men," something Tilak and his associates in Pune had long demanded. The British belatedly rediscovered the political

and administrative utility of "indirect rule" and the value of trying to annex to their own cause the authority which "natural leaders" had over their coreligionists, caste-followers, and dependents. Although the need for consultation had been cited from the very first months of the epidemic, in practice it had been lost sight of, not least in Pune, in the impatience and distaste shown by doctors and bureaucrats alike toward "native agency." Some concessions had been made in Bombay city by Gatacre's plague

committee, and the riot of March 1898 was an important stimulus to consultation and greater reliance upon caste and community leaders. Instead of sending out its own search parties, the government chose "persons possessing personal influence over the inhabitants of their sections" of the city to report plague cases and encourage the adoption of approved medical and sanitary measures. 134 A similar policy was followed in other parts of India in 1898, though often only after popular disturbances had jolted administrative responses. In Delhi, for instance, during the February plague scare the administration enlisted the help, of Hakim Abdul Majid Khan ("perhaps the most influential man in the city") to reassure his fellow citizens and quell excitement and alarm.135 The technique was not infallible. Some "leaders" declined to accept the mantle of leadership or, like Abdul Majid Khan, were abused for their collaboration with the British. Others simply lacked the authority the British wished upon them. In Jawalpur, at Kanpur, and among some communities in Bombay, the administration failed to discover anyone with a controlling influence at all136

In general, then, the British had retreated a long way from Rand's energetic deployment of European troops and his disdain for "native agency." Moreover, the change in policy appeared to bring practical results. Even in Pune, which had been further punished by the imposition of a punitive police force following Rand's assassination, the more conciliatory approach was welcomed and for the first time led to genuine cooperation between civic leaders and plague administrators. In September 1897 the local plague regulations were amended so that the British soldier accompanying each search party remained outside while two Indian soldiers went inside houses to look for plague cases under the direction of an Indian volunteer. This might seem a small concessionforce, after all, was still much in evidencebut it was hailed by *Kesari* as providing a "fine opportunity" for Pune's political leaders to show that "Natives are as capable of managing these things as Europeans and that they do possess the organizing and administrative tact."137 The *Mahratta* also praised the new regulations for being consistent with Indian "self-respect." By contrast, it said, the "excesses in the last campaign," which had helped provoke Rand's assassination, had been "entirely due to Native help and sympathy being despised."138

In Calcutta, too, substantial concessions to middle-class protest

were authorized in August 1898. Members of families that had been inoculated were allowed to remain in their homes even if a case of plague broke out among them; the compulsory segregation of other occupants of a house in which plague occurred was stopped; and residents of spacious houses were allowed to use their upper stories and roofs as "hospitals" whenever, in the health officer's judgment, this could be done without risk of the infection spreading. 139 When plague did return to Calcutta in February-April 1899 it was not met, as before, with compulsion and the threat of hospitalization and inoculation, and the new approach, according to the municipal administration report, "resulted in a great change in the attitude of the people." Unlike the conditions in May 1898, when there had been "great opposition" to plague measures, "practically nothing of the kind was encountered during the second and far more serious epidemic" the following year.140

The Indian Plague Commission, appointed by the Government of India at the height of the crisis in 1898, provided in its report two years later scientific approval for this shift from a coercive to a more conciliatory policy, and though resistance rumbled on sporadically for several years, it became axiomatic that force was counterproductive.141 It had proved impossible, the Plague Advisory Commission agreed in 1908, to stamp out plague "by the means adopted in European countries in dealing with epidemic disease." In consequence, it had been necessary to substitute a policy of "persuasion and assistance" from the people for the "more rigorous measures" at first employed, even though this meant the continuing spread of the disease.142 In the end, the gradual decline of plague was probably due less to medical and sanitary intervention than to the natural limits set on its spread by a variety of zoological and ecological factors, such as

the geographical distribution of certain species of rat fleas and the growing immunity of rats to the plague bacillus.143

Conclusion

The early plague years constituted a major crisis point in the history of state medicine in nineteenth-century India. This was not so much because of the scale of sickness and mortality caused by the disease, though over the course of the period between 1896 and 1914 this proved considerable. Rather, the crisis was caused primarily by hostile public reaction to the exceptional measures the government had

taken in response to its own political and economic imperatives and to the advice given by its medical and sanitary officers. In many cases, the plague measures anticipated the arrival of the epidemic itself and gave rise to a flurry of rumors about their nature and purpose. The scale and violence of public reaction caused the administration to doubt the political wisdom of persisting with such unpopular measures and brought about a dramatic shift in policy, with senior medical advisers supporting the view that only more conciliatory measures were practical, even though the costs in terms of plague deaths would inevitably be great.

But the opening years of the plague epidemic represent a crisis in a wider sense, tooa crisis of confidence in Western medicine and public health generally. In the slow evolution of public health and state medicine in India, the epidemic marked a critical departure from earlier enclavist attitudes and the narrow preoccupation with European and military health. Clearly, the measures taken in 1896-97, first in Bombay and then in towns and cities across India, involved an unprecedented degree of medical and sanitary intervention, unparalleled in the earlier and more tentative campaigns against smallpox and cholera. And though the intensity of public reactions brought about a substantial retreat from the more assertive policies of the early plague years, these initiatives were never entirely reversed. Rather, they paved the way for later, albeit more cautious, measures and a greater commitment to the idea of public health. Sanitary staff in the cities were strengthened; programs of public welfare and health education were initiated; and the government, still in 1896 largely indifferent to bacteriology and parasitology, accepted the need for new research institutes and a corps of specialist medical researchers. 144

But the immediate effect of the interventionist measures of 1896-1900 was to stir up a great tide of alienation from Western medicine. Vaccination against smallpox, inoculation against cholera, attendance at hospitals and dispensariesall these quantifiable indices of the "progress" of Western medicine suffered severe reversals from the fear engendered by coercive plague measures. Even the attempt to overcome the kind of public antipathy and suspicion which provoked the attacks on Bombay's Arthur Road Hospital in October 1896 by setting up "caste hospitals," run by local communities and allowing treatment by Ayurvedic or Yunani practitioners, initially failed to elicit much support, so deep was the prevailing suspicion of hospitals

and doctors. 145 Popular rumor revealed how far medicine was associated with the coercive and alien aspects of colonial rule: it was identified with torture and death, not with health and healing. And yet this crisis was perhaps a necessary rite of passage for Western medicine in India. It is remarkable how quickly hospital and dispensary numbers returned to, and then steadily outstripped, their former levels.146 If there was a single moment when Western medicine in India appeared to have turned a corner, to become something more than just colonial medicine, that moment surely came in the aftermath of the first phase of the plague epidemic.

The reasons for this have much to do with middle-class attitudes, a subject discussed more fully in chapter 6, but they also relate to a belated realization on the part of the government and its medical officers that Western medicine had to change its ways if it were to be effective in India. It had to address itself to the needs and the attitudes of the people while also looking to long-term measures rather than to quick fixes. This change of mind was brought about partly by the strength of popular resistance (though the immediate response was to put that down to "native prejudice" and "fatalism") and by the reassertion of political over medical priorities. But no less significant was the failure of medicine itself to provide any ready answers to the complex problems of disease in India.

In November 1911, at a time when the lessons of the plague epidemic were still being digested by the Government of India, Sir Harcourt Butler presided over the first All-India Sanitary Conference. Butler, who as secretary to the Government of the United Provinces had been closely involved with provincial plague policy a few years earlier, reflected the new pragmatism in relation to medicine and sanitation and also the kinds of political considerations which had prevailed for most of the nineteenth century. Quoting in part from a document recently prepared for the government by the surgeon-general, Pardy Lukis, he told his audience that:

> The basis of all sanitary achievement in India must be a knowledge of the people and the conditions under which they live, their prejudices, their ways of life, their social customs, their habits, surroundings and financial means . . . . The ardent spirits who may think that sanitary measures possible and effective in the West must be possible and effective in India will flap their

> wings in vain and set back the cause which claims their laudable enthusiasm.

He declared his commitment to "the slow but sure results of education" as the "forerunner of sanitation," but stressed that "we have to deal with the facts as they are today."

> We have to work out our own sanitary salvation. We have to study the epidemiology and endemiology of our own communicable diseases, the so-called "tropical diseases"plague, malaria, cholera and dysenteryin order that having ascertained the actual sources and modes of conveyance we may determine scientifically the particular methods requisite for their avoidance, prevention and suppression; and that we may apply with precision those methods which it is possible and politic to adopt. And we cannot do this without the assistance and cooperation of Indians themselves. 147

That Butler placed plague first among the "tropical diseases" to be tackled reflected the importance of the administrative as well as medical experience of the recent epidemic. In his emphasis upon what was "possible and politic," as well as on the importance of Indian cooperation, Butler was both restating old verities and presenting a manifesto for the future course of Western medicine and sanitation in India. Whether that manifesto could be translated into reality remained, of course, quite another matter.

6
Health and Hegemony

This account of disease and medicine in nineteenth-century India has so far been concerned mainly with Western medicine as an imperial artifact, with the introduction and imposition of an alien and state-oriented system of medical thought and practice, and with the contrasts these presented to Indian attitudes and responses. The hegemonic ambitions of Western medicine have at times been referred to, but more often coercion has appeared as the dominant expression of Western medical activity, albeit greatly qualified by the administrators' fear of a political backlash and by state reluctance to invest in Indian health.

Coercion thus finds an appropriate antithesis either in public resistance or self-imposed state abstinence. But is giving prominence to resistance a form of complicity in colonialism, an implicit acceptance of its negative stereotypes of an unchanging, unheeding Oriental society? Certainly, Indian opposition and the contrary strength of indigenous values were repeatedly cited by the colonial bureaucracy and medical establishment to justify caution or inertia, whether this sprang from fear of political unrest, financial constraints, or a simple lack of interest in Indian well-being. But it has been argued here that resistance was importantas an expression of Indian attitudes and a measure of the cultural and political gulf Western medicine revealed, but also as a formative influence on the ways in which Western medical ideology and practice were formed and presented in colonial India. This is not to suggest, however, that Indian attitudes were uniform and unchanging, nor that Western medicine served only to articulate imperial needs and colonial authority. Any account