

***“Plague germs can penetrate the celestial dress, but plague measures cannot.”
Mapping Plague Narratives in British India, 1890-1925.***

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With the remarkable cessation of plague in Western Europe at the end of the seventeenth century, and the disappearance of plague from Turkey and Egypt in the mid-nineteenth century, the plague vanished entirely from its old haunts in South-Eastern Europe.¹ But just when the world believed that the plague as an epidemic disease was a thing of the past, it resurfaced in Yunnan, China in the 1850s, infecting Southern China before attacking Canton and then Hong Kong in 1894. International fears were rekindled when plague was transported via steamships circling the globe. This modern pandemic took nearly 15 million lives, affecting mostly India, China and Indonesia. In India, the disease caused over 10 million deaths from 1896 to 1921,² with varying estimates placing mortality rates at over 12 million, severely dislocating life. A crisis of such magnitude makes for an insightful analysis into varied perspectives on the Indian encounter with plague.

Debating Its Origins

Multiple notions about the origins of plague in Bombay were in circulation. Waldemar Haffkine, eminent microbiologist, proposed that since the outbreak commenced near the docks, it was probable that the infection was introduced by sea and carried in their clothes or goods by traders. His alternate theory was that of introduction by traders from northern India since it was widely acknowledged that the southern slopes of the Himalayas had been endemic to the disease.³ Not a few competent authorities held similar notions of the disease having been brought to Bombay by pilgrims from certain villages in the Kumaon Hills, located in Uttarakhand, to the north of India. This theory was supported by the fact that in the early months of 1896, there had been a stream of pilgrims and devotees, moving from the north to the sacred shrines of Nasik which lay in the Bombay Presidency, while also frequenting the temple of Walkeshwar at Malabar Hill (South Bombay).⁴ Bombay's Police Commissioner, R.H.Vincent echoed Haffkine's opinion, believing that the plague had been imported into Bombay from Kumaon by *sadhus* (holy men) who came down from the Himalayas from May to August 1896, taking up their

¹ W.J.Simpson, *A Treatise of Plague dealing with the Historical, Epidemiological, Clinical, Therapeutic and Preventive aspects of the Disease* (Cambridge: Cambridge University Press, 1905), pp.33-37.

² Major F. Norman White, *Twenty Years of Plague in India with Special Reference to the Outbreak of 1917-18*, Punjab Government Civil Secretariat Proceedings, Home: Medical and Sanitary, Numbers 190-94, p.2.

³ W.M. Haffkine, *The Bombay Plague*, (Bombay: The Education Society's Steam Press, 1900), p.68.

⁴ Report on the Outbreak of Bubonic Plague, P. C. H. Snow, Municipal Commissioner for the City of Bombay, 2 October 1897, p.2.

quarters in Mandvi (South Bombay).⁵ This association with the Kumaon Hills could just as easily have been dismissed as quite impossible, partly because there was no epidemic plague in Kumaon at that time, and the travellers must have taken ten days to a fortnight, in the least, to reach Bombay from their hill country, during which time cases would have occurred amongst them *en route*. Since the sadhus passed through several places before arriving at Bombay, one might wonder why the contagion had not spread to those regions. There is no evidence to establish that there was any sickness in their company until some days after their arrival in Mandvi.⁶

A man who contracted plague in Hong Kong, and travelled to Bombay via the *S.S.Bormida*, in March 1899, fanned suspicion about the disease having travelled from there. The possibility of similar cases having occurred in 1896 was taken seriously. Also, very early in the epidemic, mortality among rats was known to have preceded those of humans in the neighborhood of a certain warehouse in Mandvi. The building was found to contain goods that had been imported from Hong Kong, not to mention the fact that plague was epidemic in Hong Kong shortly before Bombay was infected.⁷ A general consensus lay with this theory, suggesting that the plague had indeed been imported from Hong Kong. Dr. Ismail Jan Mohamed, member of the Municipal Corporation, and Dr. Bhalchandra Krishna, were among those who supported this theory, claiming that the origins of the infection lay in the importation of Chinese crackers from Hong Kong,⁸ and that the infection was communicated to rats that consumed these crackers, and from them to man. Interestingly, a native Parsi medical practitioner proposed that the clothes and goods of those infected in China might have been brought over to Bombay, along with some other goods, thereby bringing the disease to the city. This theory derived some support from the fact that the disease mainly prevailed among the *Lohanas*⁹ in Mandvi, and these Lohanas were mostly employed on board the steamers coming into the port from China. Some of them were even employed as servants to the *Banias*,¹⁰ possibly infecting them.¹¹ Evidence in favor of the Gulf was that it was much nearer Bombay than China; that communication between the Gulf and Bombay was more frequent than with China, there being more passenger traffic to and from the Gulf, and that there were a large number of country boats plying between Bunder Abbas, other Gulf ports, and Bombay. If plague came from there, it was considered possible that it was brought in one of these.¹² There had indeed been brisk commercial intercourse between Bombay and Busrah, the export-center for Turkish Arabia for centuries, and yet, there had been no

⁵ Report on Native Newspapers (NNR hereafter)-Bengal, *Hitavadi*, 30 December 1898, p.11.

⁶ Wesley Clemensha, *Plague from the Sanitarian's Point of View*, (Calcutta: The Baptist Mission Press, 1903), p.5.

⁷ *Ibid.*, p.6.

⁸ *Report of the Indian Plague Commission (IPC hereafter)*, V, p.11.

⁹ Members of the Suryavanshi Kshatriya clan, known to have originated in the region of Punjab and later on migrated to Sindh and Gujarat.

¹⁰ An occupational caste of traders and money-lenders hailing from Western and Central India.

¹¹ Bombay Gazette (*BG* hereafter), 26 September 1896.

¹² Maharashtra State Archives (MSA), G.D.(Plague), Vol.332, 1898, T.S. Weir, Health Officer, Bombay, 27 September 1897 to P.C.H. Snow, Municipal Commissioner, pp.46-47.

record of the disease ever having found its way down the Persian Gulf from the Turkish Arabian littoral.¹³

The areas to be affected first were close to the docks, and it was logical to assume that plague entered Bombay through its port. The Hong Kong epidemic of 1894 was common knowledge and ships leaving the Frangate Harbor were quarantined in Singapore. The Indian port of Calcutta was at greatest risk but when the outbreak in Hong Kong was declared under control, the quarantine was lifted. In 1896, when plague recurred in Hong Kong, the Government of India did not receive any information. Hence, quarantine was not re-imposed. Thus ships from Hong Kong enjoyed pratique in India.¹⁴ Widespread official opinion tilted in favor of this impression of how Bombay might have been infected.

Locating The First Victims

Dr. Accacio Viegas, a private practitioner, has been attributed with the discovery of plague in Bombay.¹⁵ But while 23 September 1896 marked the “official” presence of the plague in the city, there were indications that the disease might have been diagnosed well before September. K.S. Engineer, Fellow of the Chemical Society in London and a Licentiate of Medicine and Surgery of the Bombay University, claimed that he had observed his first plague case on 16 July 1896.¹⁶ Dr. Ismail Jan Mohamed, Licentiate of Medicine and Surgery and a member of the Municipal Corporation, was of the opinion that the first cases appeared around the beginning of August 1896. Several others recollected cases of sudden death of what they presumed were ordinary severe types of malarial fever.¹⁷ A lack of experience in diagnosing plague was probably among the problems associated with such claims. Municipal Commissioner P.C.H. Snow spoke of the difficulty in accurately diagnosing this multiform disease as being admittedly very great; many suspicious cases were put down as diphtheria while the resemblance to enteric fever often made the differential diagnosis exceedingly difficult in the absence of bacteriological examination, and even such examination not infrequently proved abortive in cases of plague.¹⁸ Patients showed different symptoms and since characteristic features like glandular swellings and a high temperature were not uncommon in Bombay,¹⁹ the diagnosis of plague was indeed a challenge. Additionally, it was not easy to establish if these cases were genuine or simply a reaction to the increasing interest around the outbreak.

¹³ *BG*, 7 October 1896.

¹⁴ Kalpish Ratna, *Uncertain Life and Sure Death*, pp.274-5. The Hong Kong plague of 1894 raged for five months with a death toll of 2,550. Its recurrence in 1896 was milder, with 700 reported deaths. It was believed that it was this ‘contained’ outbreak which arrived at Bombay’s shore.

¹⁵ Captain J. K. Condon, *The Bombay Plague: Being a History of the Progress of Plague in the Bombay Presidency from September 1896 to June 1899*, pp.1-4.

¹⁶ Report of the Indian Plague Commission (*IPC*), III, 18, 296.

¹⁷ *Ibid.*, 17,759-17,760.

¹⁸ *Ibid.*, p.280.

¹⁹ *Ibid.*

It was evident that the Bombay Government was loath to acknowledge the presence of the dreaded disease. The *Lancet* reflected this sentiment when it reported of an outbreak of fever, attended by some of the features of what was “alleged” to be bubonic plague.²⁰ The *Lancet*’s contemporary, the *British Medical Journal (BMJ)* did discuss the possibility of the disease being plague. Due to the identification of the plague bacillus that was “definite and characteristic” in addition to the detailed clinical symptoms, *BMJ* ridiculed the notion that there might have been any mistake in the diagnosis.²¹ Initially, no serious measures were adopted by the authorities to control the disease. The colonial authorities, fearful of causing damage to foreign trade that was carried out primarily through the port of Bombay, remained silent regarding the spread of the epidemic. Although the over-populated dwellings of dockers and textile workers witnessed more than half of them dying, the officials claimed that the plague was present in only a mild form.²² Every possible care was taken to avoid plague attacks in the European quarters.²³ Eventually, the *Lancet* relented on 17 October 1896, reporting that a malady attended with glandular swellings, high fever, and delirium, and commonly fatal in three or four days, either possessed the features distinctive of plague or of the disease very closely allied to it.²⁴

Diffusion Into The Interiors

Bombay was to become a great gateway for the plague bacillus, being a major port of Western India, and being well connected through the railways. Any outbreak of plague in one quarter of the town was followed by the removal of the sick to another; and where several cases took place in a large building or a compound, the neighboring families would disappear en masse. These movements were conducive to the spread of the disease.²⁵ This was typical of random-natural diffusion²⁶ where contact between humans was largely dependent upon chance meetings, and where opportunities for human plague were small and followed a fairly random pattern, in many cases leap-frogging or bypassing houses and streets. At first, the progress of the disease from Mandvi was relatively slow, while the epidemic phase began in December, with the sudden appearance of new foci of rat and human plague across Bombay. The population became panic-stricken, and vast numbers fled until half the inhabitants had departed into the interiors of India, carrying the infection along with them. Members of the floating population and the merchant community departed in large numbers. The floating population, having nothing to detain them, realized their pay and left. It was from amongst this class that the early deaths from plague occurred, resulting in panic. They left Bombay by the hundreds via sea, some taking along sick companions, others carrying the incubating disease on their person, only to break out on arrival at their homes. Towards the end of September 1896, Ahmedabad was the first place to be infected. The merchant class left by rail and steamers. By December, Poona and Karachi were infected, and soon

²⁰ *Lancet*, 3 October 1896, p.958.

²¹ *British Medical Journal*, 3 October 1896, p.966.

²² Mark Popovsky, *The Story of Dr.Haffkine*, (Moscow: Progress Publishers, 1963), p.84.

²³ *Ibid.*, pp.84-85.

²⁴ *Lancet*, 17 October 1896, p.958.

²⁵ *Report of the Bombay Plague Committee from 1st July 1897 to 30th April 1898*, p.50.

²⁶ See Peter Curson and Kevin McCracken , *Plague in Sydney*, for an understanding of the various types of diffusion.

the infection spread to other parts of the Bombay Presidency. By 31 March 1897, the whole of the Konkan, as far south as Ratnagiri, the district of Kutch, Kathiawar, Surat and Daman, were all infected with the disease by the floating population, while in the towns of Karachi, Poona, Sholapur, and Hyderabad (Sind), the disease had obtained more or less of a footing, the virus being conveyed there in all probability by members of the merchant community.²⁷

The British authorities harbored concerns about the possibility of reverse migrations, from the interiors into Bombay city. They had hoped that the news of the spread of the epidemic, in the last quarter of 1896, would be sufficiently known to the agriculturists in the Deccan so as to prevent laborers from migrating to the city to find employment. The slackness of trade in the city would greatly minimize their chances of working there. It was also hoped that the railway works in progress in Gujarat would divert a part of the stream, but the scarcity of rain and the consequent absence of work on land led to an influx of the unemployed. Their prospects of falling victims to the disease in Bombay were greater than their chance at finding employment.²⁸ Dr. Weir, Health Officer for the city, foresaw a possible crisis in the immigration of cultivators seeking employment to escape the consequences of crop failure. During the first week of October 1896, three hundred immigrants came to Bombay from the Southern Mahratta Country. They were healthy *kunbis* (farmers) from Ratnagiri and neighboring areas. It was feared that if unfavorable conditions prevailed throughout the vast rural expanse, the city would be inundated with thousands of immigrants.²⁹ For a fact, Bombay saw the arrival of between 250,000 and 300,000 immigrants during the months of April, May and June of 1897.³⁰ Among those who fled Bombay city and Poona were the well-to-do members of the municipal government who chose to leave for distant places where they had relatives or land, or both. The Bombay-Karnatak town of Dharwar poured several refugees into the surrounding villages. Nevertheless, in Western India, there seemed no sharp distinction as far as the movement of people was concerned between the town and the countryside, making for a rural-urban continuum.

If bubonic plague were infectious, it would have been expected to spread to hospital attendants, nurses, doctors, and other visitors to the bedside of the plague patients. It might have also been expected that the numerous individual imported cases that broke out in uninfected localities among the panic-stricken refugees, would serve as fresh foci of infection. However, many towns and villages remained free from indigenous plague for a long period after the arrival of the fugitives suffering from disease. Poona serves as an example of late infection, having been infected after at least fifty imported cases of plague occurred in the city. Though at least 200,000 people fled from Bombay during the first five months, only four other towns were infected. Further, when an imported case did give rise to plague, an interval of a month to six weeks usually elapsed before many indigenous cases would begin to appear. This slow diffusion appeared to be one of the

²⁷ *Report of the Bombay Plague Committee from 1st July 1897 to 30th April 1898*, p.50.

²⁸ *BG*, 6 October 1896.

²⁹ *BG*, 5 October 1896.

³⁰ *Report of the Bombay Plague Committee on the Plague in Bombay for the period extending from the 1st July, 1897, to the 30th April, 1898*.

most constant characteristics of plague. While the latent period puzzled epidemiologists, Simond seemed to have the answer. Rat fleas from the infected area were passively transferred to the new home of the refugee on his person or among his belongings, seeking to find their natural host as quickly as possible, and soon they infected the local rats. The latent period in question represented the time taken to establish a local rat epizootic. It was not necessary for the bearer of these infected fleas to fall sick himself. He was often, quite well, and remained so.³¹

The plague spread mainly along the main lines of communication. Soon enough, it began to appear in other provinces. While the foci were established in a random and irregular fashion, the diffusion was steady around each focus. Fugitives from the Bombay Presidency were not long in carrying infection to other provinces, and this, notwithstanding certain precautionary measures of inspection that were taken on the railways.³² The first outbreak of the disease, outside the Bombay Presidency, occurred at the village of Khandiaoni, in the Gwalior State, in January 1897.³³ In most provinces, the spread of plague in a newly infected town or village, displayed identical patterns. Plague officers had particularly observed that the village shopkeeper was the first to contract plague. There were more rats about his house and storehouses than in any other habitation. The rats might have contracted the disease from infected grain or grain bags brought from an infected warehouse. Punjab was infected in October 1897, followed by Bengal and Madras in 1898. The spread had been slow but certain, and only large tracts of water had, in any way, hampered its spread. India's large rivers, especially the Indus, had delayed its progress north. Year after year the number of newly infected villages and towns increased, and they in turn become foci for its spread.³⁴ However, the east and south of India never became strongholds of the disease. Its distribution was extremely uneven and irregular, with some areas remaining virtually immune to the disease. The Plague Research Commission figured, in the course of their inquiry at Bombay, that some of the most sanitarily built *chawls* (large buildings divided into separate tenements offering basic accommodation to labourers) were the most infected. This was an indication of how the construction of dwellings had much to do with the spread of plague. It was no surprise that the construction of houses in villages led directly to rat infestation and enhanced the probability of spreading infection. In Punjab and the United Provinces, where the rigors of winter were severe, the average village consisted of a row or rows of low mud huts, built in continuation with flat roofs and a single opening serving for a door and window where the entire family lived with its cattle and domestic animals, its grain store and refuse heap. A rat that penetrated from one end of such a dwelling was therefore easily able to burrow itself through all the huts in the row and convey infection to the inmates. When one contrasts this with the conditions prevailing in the rural areas of Bengal and Madras, one notices how rats were kept from invading the living rooms. The agriculturist had a separate place for storing grain and cooking, at some distance away

³¹ *Gazetteer of Bombay City and Island*, Vol.1, 1909, p.118.

³² W.J.Simpson, *A Treatise on Plague dealing with the Historical, Epidemiological, Clinical, Therapeutic and Preventive aspects of the Disease* (Cambridge: Cambridge University Press, 1905), p.71.

³³ Wesley Clemensha, *Plague from the Sanitarian's Point of View*, p.66.

³⁴ *Ibid.*

from his dwelling place. This explains why these provinces were, in a sense, immune to the disease.³⁵

Of Colonial Perceptions and Governmental Intervention

Commissioner Snow observed that the plague had begun in a year of intense famine, debilitating people, leaving them in no condition to resist disease. He was quick to dismiss any suggestion that the poor sanitary condition of the city encouraged the spread of plague.³⁶ Yet, the authors of several official plague reports believed that filth and squalor were the main propagators of the disease. General Gatacre's plague report as well as J.Lowson's compilation prepared for the Government of India, not only laid emphasis on insanitary and filthy conditions as predisposing factors of the disease, but also considered these to be innate to the Indian environment which came to be explicitly blamed for the increasing virulence of the bacillus.³⁷ Surgeon Lieutenant Colonel Waters remarked, "epidemics now-a-days are more and more believed to be due to local conditions and are not simply imported."³⁸ Dr.Viegas reiterated this argument in remarking that the plague bacillus would only flourish if it found a suitable nidus as it had, in the insanitary environs of Mandvi. The "filthy habits" of the natives were isolated and blamed for spreading the infection by "expectorating on floors," considered by James Lowson as an "ineradicable oriental habit."³⁹ The discovery of the plague bacillus by Kitasato and Yersin in 1894, during the Hong Kong epidemic, was verified through bacteriological investigation by not only Haffkine, but also Hankin⁴⁰ and other medical officers of the Government of India and members of scientific missions sent to Bombay from Egypt, Germany, Austria and Russia.⁴¹ But, despite the rapidly developing world of bacteriology, there was no consensus on the method of transmission and dissemination. As such, the state was far from united in its opinions about how best one might arrest the progress of plague. Before the confusion over theories of transmission could be settled, many acknowledged the difficulty in diagnosing a disease that existed in several manifestations. The most common modes of infection were thought to be through air or touch. And consequently, the poison was believed to gain access to the body through the respiratory organs or the skin. Of the former, it was believed that the plague victim might bring the poison into his lungs and when he expectorated, he would contaminate his clothes, the floor and other contents of the house that would then infect others. Many theorists argued that the bacillus entered the body through wounds, abrasions and other openings of the skin or mucous membrane. Hankin did believe that the disease was not due to breathing poisonous air but infected humans through inoculation of the skin.⁴² While it was universally observed that a rat epizootic preceded a human epidemic,

³⁵ N.H. Choksy, 'Plague in India', (A Series of seven articles contributed to *Times of India*), May-June 1923, p.9.

³⁶ *Ibid.*, p.3.

³⁷ R. Nathan, *The Plague in India, 1896,1897*, (Simla: Government Central Printing Office,1898), p.36.

³⁸ *Lancet*, November, 1896, p. 430.

³⁹ J.A. Lowson, Report on the Epidemic of Plague: 22 February to 16 July 1897, p.6.

⁴⁰ E.H.Hankin was a British bacteriologist who studied malaria and cholera, in addition to the plague, in India.

⁴¹ Nathan, *Plague in India*, p.7.

⁴² 'Hankin's view of the Plague in Bombay', *Lancet*, January 1897, p.415.

Lowson focused on shaping a plague policy around the human agency of the bacillus, despite evidence in favor of the rat flea. The role of the rat flea in the dissemination of the disease came to be accepted only much later. The early period of the epidemic focused on the ability of the sick to propagate infection, in addition to local factors of insanitation. The anti-plague measures were designed, based on such perceptions.

The Health Department and the Municipal Corporation had to take immediate anti-plague measures and provide medical relief to patients. Streets and drains were ordered to be cleaned and disinfected. The Municipal Commissioner issued a public notice which stated that persons suffering from contagious diseases would be admitted to hospitals, and houses with plague patients would be evacuated and disinfected.⁴³ This notice was significant because segregation of those infected from the rest of the population seemed, to the authorities, to be the only way to contain the disease. The notice resulted in a great deal of unrest in Bombay. The Home Government, particularly the Secretary of State, George Hamilton, advocated stronger action. In addition to compulsory segregation and evacuation, he called for the closure of Indian ports to *Haj*⁴⁴ pilgrims.⁴⁵ Viceroy Elgin, unlike Hamilton, was moved not only by economic considerations but was inclined to take stock of social and religious implications of any policy that might be introduced.⁴⁶ He decided to gauge the opinion of other local governments before deciding on such action. It was the opinion of most of the senior officials that total prohibition of Haj would be “politically injurious.” John Woodburn, Home Minister, personally undertook a survey of Muslim feelings and arrived at the conclusion that total prohibition would complicate rather than ease the situation.⁴⁷ Such was the opinion of Lieutenant Governor MacDonnell as well.⁴⁸ After taking into account all shades of opinion, Elgin forcefully reiterated his views against total prohibition of Haj pilgrimage, and he received support from the majority of the Executive Council.⁴⁹ But nothing short of total prohibition appealed to Hamilton. He over-ruled the Indian Government.⁵⁰ In doing so, Hamilton, supported by Lord Salisbury, was mainly motivated by imperial considerations and did not take into account the possible political implications. So on 20 February 1897, the annual Haj pilgrimage was suspended.⁵¹ Lord Sandhurst, Governor of Bombay, had passed the Epidemic Diseases Act on 12 February 1897. The Act extended to the whole of British India. According to it, when any dangerous disease appeared, the governor could put the Act in force by prescribing regulations to control the disease. Any ship, vessel or railway train could be inspected or detained for medical inspection. The Governors could confer power to the local governments. Those who disobeyed were to be

⁴³ Notice issued by P.C.H. Snow, Municipal Commissioner dated 6th October 1896. Cited in *BG*, 7 October 1896, p.4.

⁴⁴ Haj refers to a pilgrimage to Mecca which is to be undertaken at least once in a lifetime, by a Muslim.

⁴⁵ Hamilton to Elgin, 21 January 1897, Elgin Papers (E.P.)

⁴⁶ Elgin to Hamilton, 3 February 1897, E.P.

⁴⁷ John Woodburn's Note, 14 February 1897, Enc. Elgin to Hamilton, 17 February 1897, E.P.

⁴⁸ MacDonnell to Elgin, 16 February 1897, E.P. MacDonnell was the Lieutenant Governor of the North-West Provinces from 1895-1901.

⁴⁹ Only two military members, Collins and General White and Law Member, Chalmers, dissented from the majority opinion.

⁵⁰ Telegram, Secretary of State to Viceroy, 18 February 1897, E.P.

⁵¹ *IPC*, p.340.

punished under Section 188 of the Indian Penal Code.⁵² The Bombay Plague Committee was given the widest possible powers. It was authorized to evacuate any building, destroy it, forcibly search private homes, segregate the patients and remove them to hospital.⁵³ Collection of information about plague cases through house searches was to be conducted, and soon, search parties were deployed. They visited homes in order to detect the cases or insanitary surroundings and were supported by a cordon of soldiers to prevent the people from escaping.⁵⁴ These parties were not always sensitive to the feelings of the local people. Evidence of the reckless attitude of the search parties could be sensed in the words of a City Health Officer, “we treated houses practically as if they were on fire, discharging into them from steam engines and flushing pumps quantities of water charged with disinfectants.”⁵⁵ The most intolerable feature of the search parties, which exclusively comprised of British officials, related to their invasion of the privacy of an Indian house, for the Indian women, Hindus and Muslims alike, practiced *pardah*.⁵⁶ In August 1897, the chief object of the Bombay Plague Committee was to provide camps for the healthy when they were removed from infected houses. Disinfection was considered a necessary device to control the spread of plague. It was believed that plague bacilli thrived in houses, godowns, factories, clothes and other belongings of the victims. The Committee used disinfectants like carbolic acid, perchloride of mercury, lime, sulphur, kerosene oil and phenyl.⁵⁷ While these exceedingly unpopular measures were being undertaken by General Gatacre in Bombay, they did not deter India Office from suggesting more stringent measures like corpse inspection and a tight system of land quarantine.

In Punjab, a comprehensive framework for plague administration was created. It proposed surveillance and inspection for early detection of the disease, evacuation of infected dwellings, segregation of the sick and their relatives and disinfection of infected articles. However, officers such as Surgeon Captain C.H. James, plague medical officer at Banga, were among the few who believed that rats were the potent cause for the spread of the disease. In his view, the disease was spread by the migration of rats from one house to another as the houses had their walls or roofs touching each other.⁵⁸ Others continued to maintain that the plague was spread by human agency.⁵⁹ Understandably,

⁵² MSA, G.D. (Plague) Vol.70, 1897, From Lord Sandhurst, Governor, Bombay, 12 February 1897.

⁵³ *IPC*, p.28.

⁵⁴ *Ibid.*, p.41.

⁵⁵ *Ibid.*

⁵⁶ *Purdah* refers to the practice of concealing women from men; separating the world of men from that of women. Women were required to observe complete seclusion and were not to come in contact with people other than their family members. They covered their bodies in an effort to conceal their form and avoided public appearances. Both Hindu and Muslim women from especially northern and central India followed this practice, and continue to do so.

⁵⁷ MSA, G.D.(Plague)Vol.59,1897. General Gatacre, Chairman, Plague Committee, Bombay, 15 May 1897 to Birdwood, Secretary of State for Bombay.

⁵⁸ National Archives of India (NAI), *Proceedings, Home: Medical and Sanitary*, May 1898, Number 84-B, pp.1-2. Capt. James cited the cases of Chak Kalal and Mohrampur in Banga circle, where the villages were evacuated even before a single case appeared and the rats died in a characteristic way.

⁵⁹ Major E. Inglis, *Plague in Jullundur and Hoshiarpur in 1897-98*, p.5. Surgeon Captain Smith argued against the rat theory and believed that infection could never be spread by rats. He asserted that Chak Kalal

therefore, in the early years, the emphasis remained on disinfecting houses, and this measure failed to kill the fleas or the infected rats.⁶⁰ Rather, flushing the houses with phenyl caused the rats to move from one *mohalla* (neighborhood) to another and even from one village to another, thereby spreading the infection. Nevertheless, it was here, in Punjab, that several attempts were made to kill rats or to prevent their migration from the infected to the uninfected areas.⁶¹

The Indigenes Respond In Resistance and Rebellion

Plague germs can penetrate the celestial dress, but the plague measures cannot. When you travel, do not fail to put on pantaloons, a short coat, and a hat or a night cap; have a cheroot in your mouth and a copy of the Bombay Times or the Lahore Gazette in your hand. I came here from Bombay the other day. We had a man who cooked for us on board the steamer. He had his dirty dhoti on for full three days, but he thought it prudent to put on pantaloons as soon as the steamer reached the Karachi harbour. He knew only “yes-no-very-well” English and had no other merit or passport than his heavenly garb. He was honourably discharged by the medico of a Saheb, and I - poor fellow! I was sent in a coal boat to be disinfected. But I should not be so foolish as to forget that I was in my dhoti, which was loose enough to invite the plague germs.⁶²

Phoenix, NNR-Bombay, 1 November 1899

The exceptional situation presented by the plague and addressed by the state through a diversity of measures, affected various segments of the population in different ways -- materially and emotionally as, more often than not, their cultural and religious sensibilities were hurt by the forced handling of the situation. These experiences did not go unnoticed by the press. The actual sources of discontent varied from locality to locality, but mostly concerned evacuation, medical examination and vaccination.

The *Hitavadi* attacked the Epidemic Diseases Act that would enable executive officers to, on the merest suspicion, enter every home and “snatch away the wife from the husband, the daughter from the arms of the mother, helpless children from the side of their parents, and old parents from the protection of their sons.”⁶³ It strongly protested against strangers entering the *zenana*,⁶⁴ keeping in view the strong sentiments associated with domestic peace and seclusion that both the Hindus and the Muslims held dear. The wording of the Act was perceived as misleading. Although the measure was to be temporary, its scope,

was infected even before evacuation and the villagers evacuated only because they had prior knowledge of the disease.

⁶⁰ Ibid., pp.31-33.

⁶¹ NAI, *Proceedings, Home: Medical and Sanitary*, December 1898, Number 242. Also, NAI, *Proceedings, Home: Medical and Sanitary*, June 1898, Number 122-26, pp.1-3. A tar cordon was made at Rahon. At other places, a trench around the infected pockets was dug. The tar cordon was one yard in width and one mile in length and cost around Rs.3,000. The trench was a yard deep and a yard broad and came at a price of Rs.200. Rat destruction was encouraged. In May 1898, the local residents were given a reward of one *pice* (1/12 of an anna) for every rat killed.

⁶² NNR-Bombay, *Phoenix*, 1 November 1899. This personal account appeared under “Jottings” contributed to the *Phoenix*.

⁶³ NNR-Bombay, *Hitavadi*, 12 February 1897.

⁶⁴ Part of a dwelling reserved for women of the household.

by virtue of it being referred to as the “Dangerous Epidemics Act” would extend to any epidemic disease. It was thus feared that cholera, smallpox, malaria, influenza and several other epidemic diseases that were rampant in the country, would now fall within the purview of this Act.⁶⁵

The first sharp reaction was against segregation because the caste system restricted the inter-mingling of people from different denominations. In Bombay, when the first case of the plague appeared in Mandvi, the Jains and Banias who largely inhabited the area, were the first to record their complaints against segregation. Being conservative, they refused to send patients to plague hospitals.⁶⁶ The Banias, from fear of “pollution”, even threatened to close shops, in protest.⁶⁷ The Millowners’ Association also objected to segregation because millworkers feared it and had migrated, thereby hampering trade and industry. The President of the Association, fearing the consequences of continuous migration on commercial activities had even appealed to Commissioner Snow to be lenient about segregation.⁶⁸ The Hindu Rajputs were furious when they heard about forced segregation, finding it unbearable and morally wrong to part with their children and women. They argued that ancient Rajputs had sacrificed their health, wealth and their lives for preserving the honor of their dear ones, and hence they saw no reason why a modern Rajput would not fight against the injustice of forced removal of plague patients.⁶⁹

The Anglo-Indian press chose to report about the favorable response from the Muslim community towards segregation. But later, in 1897, when the Government of India did not allow Muslims to undertake the Haj pilgrimage as part of the quarantine measures, the Muslims changed their stance. On 23 March 1897, Kazi Ismail Muhri sent a petition to the Governor Lord Sandhurst, signed by 15,000 Muslims of Bombay, of every sect, representative of the Bombay’s entire Muslim population, expressing their sentiment against hospitalization as it brought hardship, panic and terror and had hurt the religious feelings of the people.⁷⁰ They argued that segregation was unnecessary since no one had proven that the disease was contagious. Since it was the duty of each Muslim to nurse and cherish the sick, segregation went against this moral duty. Their religion dictated that each person had to remain clean, wear clean clothes and pray five times a day. A dying person had to face the direction of Mecca and a portion of the Koran had to be read to him. This was not possible when the sick were hospitalized. It was believed that *hakims* (Unani practitioners) and their medicine were better suited to their needs than those offered by practitioners of western medicine. They stressed on how family members were better nurses and that treatment at the house was the best alternative. The Plague Committee’s house visits were also objected to, especially the presence of soldiers accompanying the house-search teams. The Muslims opposed male doctors examining their women as it went against the purdah system. Though a lady doctor or a nurse was to

⁶⁵ NNR-Bombay, *Hitavadi*, 12 February 1897.

⁶⁶ *Report of the Bombay Plague Committee from 1st July 1897 to 30th April 1898*, p.53.

⁶⁷ *BG*, 15 October 1896, p.3.

⁶⁸ *Report of the Millowners’ Association for 1896*, Published by the Association, Times of India (*TOI*), 1897, p.24.

⁶⁹ *BG*, 13 October 1896, p.6.

⁷⁰ *TOI*, 6 April 1897, p.5.

accompany the team, there was a complaint that often, no woman was able to do so as they had duties in hospitals.⁷¹ In an unfortunate incident, a Khoja woman, Ladoobai, while suffering from plague, committed suicide by jumping out of a window of her brother's house in Tandal street. The deceased and her husband, Kurmal Alibhoy, had arrived in Bombay from Vesawa to see the great Khoja fair that was held at the Khoja *dargah*,⁷² and were to stay at the house of some relatives. Four days after their arrival, Ladoobai was attacked by the plague. About half past nine at night on 25 March, her husband and brother went to the Khoja dargah to make arrangements for a van to take her to the Khoja hospital, and on their return home, they heard the noise of a fall.⁷³ Even in Punjab, at Khan Khanan, people preferred to die in their own village rather than move into the camp.⁷⁴ The residents of Paragpur were obstructive and impertinent while refusing to go to the camps. They moved into the camp only after the arrest of a couple of men.⁷⁵ But the villagers of Raika Patti objected so strongly to evacuation that they could not be persuaded to move into the camps.⁷⁶ At Patiala, the *jagirdars*⁷⁷ decided against evacuation and it was only after a lot of persuasion that they agreed to move out.⁷⁸

A common stratagem to escape segregation was the concealment of cases by either hiding the patients in the house or sending them to a relative's place. Such actions were hazardous because, firstly, the patient did not recover due to lack of medical aid and secondly, the plague spread to newer areas. Parsis of the Fort area of Bombay were known to have concealed cases. Plague authorities closely inspected their houses and found several concealed cases. When the Parsis knew that house search teams were to arrive, they moved the sick to Marine Street or Girgaum or Breach Candy.⁷⁹ At times, neighbors, doctors, rent collectors and caste leaders helped the Committee by providing information about plague cases. Notwithstanding, people concealed cases. Konkani Muslims also hid plague cases because of their dislike for hospitals.⁸⁰

While the Rajputs strictly observed the purdah, their reluctance to be sent to a segregation camp emerged also from a sense of caste consciousness, making it difficult for the authorities to enforce such measures. In one such instance, in the village of Behrampur in Jullunder district, it was proposed to clear the people out of the infected locality and lodge them in a segregation camp, but the Deputy Commissioner had received earnest representations that Rajput women could not co-mingle in a camp provided

⁷¹ MSA, G.D. (Plague) Vol.71, 1897. Kazi Ismail Kuhri, Bombay, 23 March 1897, to Lord Sandhurst, Governor of Bombay.

⁷² Tomb of a Muslim saint.

⁷³ *TOI*, 27 March 1897.

⁷⁴ NAI, *Proceedings, Home: Medical and Sanitary*, April 1898, Number 273 B, p.10.

⁷⁵ NAI, *Proceedings, Home: Medical and Sanitary*, June 1898, Number 148, p.3.

⁷⁶ NAI, *Proceedings, Home: Medical and Sanitary*, April 1898, Number 398-405 B, p.1.

⁷⁷ The 'Jagirdari system' was a form of land tenancy in which the power of governing an estate and collecting its revenues was bestowed on an official who was known as a jagirdar.

⁷⁸ NAI, *Proceedings, Home: Medical and Sanitary*, May 1901, Number 94 B, pp.1-3. Medical Advisor to the maharaja, Major Hendley, and the Foreign Minister, Colonel Mohammad Majid, persuaded the people to evacuate.

⁷⁹ *Report of the Bombay Plague Committee*, p.55.

⁸⁰ *Ibid.*, pp. 55-56.

indiscriminately for all classes.⁸¹ In an incident at Kalka, in May 1900, while travelling to Simla with his zenana, the Maharaja Rana of Dholpur did not permit medical inspection. Several armed men accompanying him surrounded the carriage in which the Dholpur ladies were travelling and prevented the medical staff from carrying out the required check-up.⁸² In another interesting case in Jalandhar town, a Brahman was warned, threatened and served a legal notice as he prevented the staff from removing his ailing mother to the camp.⁸³

In villages, in particular, women passed under the personal supervision of a local official and a hospital assistant. A medical officer then examined them along with men in the village ground. For taking critical decisions, the male doctors had to search for bodily signs of the plague by examining the armpits, neck and thighs of women who were often forced to go through such procedures. For instance, in March, 1897, at Kalka, Jackson, a European plague medical officer, made women uncover their faces in the course of medical examination.⁸⁴ In another incident at Jandiala, the civil surgeon examined a woman suffering from fever who came from Khatkar Kalan. He examined a gland in her right groin and reported that it was of a size of an almond, following which she was moved to a shed. Her attendants were not allowed to accompany her. Commenting on this, the Civil Surgeon of Hoshiarpur stated, “she was so nervous and terrified that her one desire was to be left alone, and allowed to go back to her own home.”⁸⁵ It was only at a few places that the upper class women observing purdah were examined in their homes by the *dais* (midwives).⁸⁶ Appeals in the *Tribune* requesting for medical examination by the *dais* in all cases were turned down by the administration.⁸⁷ Corpses of women were also inspected by medical officers and male subordinate staff for signs of infection.⁸⁸

Forcible examination and removal of women to segregation camps provoked the fiercest resistance and resulted in direct clashes between their men folk and the authorities. In one such incident, on April 18, 1901, in village Shahzada in Sialkot district, a hospital assistant who examined a sick girl, declared that she was not suffering from the plague. After two days, Assistant Commissioner Howell examined her again which evoked protests from the villagers who pelted the officer with cow dung. The matter was reported to the Deputy Commissioner Tollinton who met the leading men of the locality. They protested and an argument ensued following which they were arrested, but some of them escaped. Tollinton ordered a first class magistrate, thirty policemen and three hundred and fifty cordon levies to control the situation. The villagers came out in large numbers and attacked the policemen. The ringleaders were arrested and tried and order was

⁸¹ *Pioneer*, 25 December 1897, p.5.

⁸² NAI, *Proceedings, Home: Medical and Sanitary*, June 1900, Number 14-15, pp.1-3.

⁸³ *Tribune*, 9 April 1903.

⁸⁴ NAI, *Proceedings, Home: Medical and Sanitary*, April 1897, Number 43, p.376.

⁸⁵ NAI, *Proceedings, Home: Medical and Sanitary*, January 1898, Number 48, p.2-3.

⁸⁶ NAI, *Proceedings, Home: Medical and Sanitary*, January 1898, Number 45, p.20.

⁸⁷ *Tribune*, 23 April 1901.

⁸⁸ In Aur circle, corpse inspections were carried out in several villages. The bodies of women were inspected by medical officer, Clerk, at Palewal; medical officer, Davis, and hospital assistant Asa Ram at Mukandpur; and hospital assistant Jawahir Singh at Rahpa. Major E. Inglis, *Plague in Jullundur and Hoshiarpur 1897-98*, pp.137-39.

restored.⁸⁹ In another instance, at Khanowal in Gurdaspur district, a hospital assistant who examined a woman suspected of plague, was initially chased away and later assaulted by the villagers carrying *lathis* (wooden sticks) and stones. The leaders were arrested to restore peace and order.⁹⁰ The press regularly featured incidents of molestation. For instance, in Jalandhar, contrary to the plague rules, an Aggarwal Bania woman suffering from the disease was forcibly removed from her house by coolies and taken away to the camp in a *rehri* (hand-driven cart) in the presence of all.⁹¹ Elsewhere, the tahsildar of Shahjahanpur killed twelve persons, including a doctor, a compounder, some police officials, his wife, and then, shot himself.⁹²

Bombay witnessed the examination of female passengers on the platforms in the presence of all. The *Gurakhi* voiced its strong opinion about the medical examination of women:

If there be any truth in the reports that have reached us during the last day or two about the medical examination of female passengers at Kalyan, it will be acknowledged on all hands that that sort of examination is revolting and outrages all etiquette. That a female should be publicly asked by a male stranger to remove the end (padar) of her sari from the upper half of her body is most insulting and likely to result in loss of life. Native females, whether Hindu, Parsi or Muhammadan, are very particular about their modesty and value it more than their lives.⁹³

The native press also raised the issue of racial differentiation in railway inspection since the Europeans and Anglo-Indians were treated favorably over the natives. The authorities were liberal towards the first and second-class passengers who were mainly Europeans and this led to complaints.⁹⁴ It is important to note, however, that among the natives, some consideration was shown to the aristocracy and the educated middle class.

There were occasions when anger sparked violence in the form of riots and strikes. All great cities have their mob element, easily swayed to violence, and Bombay was no exception. The first public protest against forced segregation occurred in October 1896. Some men threw tar on the statue of the Queen Empress and a necklace of slippers was placed on the statue. The authorities were puzzled about the motive of the culprits.⁹⁵ On 20 October 1896, about a thousand workers from textile mills protested against segregation. They assembled outside the Arthur Road Hospital and threatened to wreck the building and carry away the patients. This incident was repeated on 29 October, when the mill workers stoned the hospital. According to them, two women from the Jacob Sassoon Mill were forcibly carried away by the plague authorities even though they were not plague patients. The gathering was to protest against such high-handedness. The police intervened and peace was restored.⁹⁶ The *Kaiser-e-Hind*, *Prabhakar*, *Indian*

⁸⁹ *Tribune*, 30 April 1901, pp.3-4.

⁹⁰ NAI, *Proceedings, Home: Medical and Sanitary*, Number 65-68, May 1901, pp.1-8.

⁹¹ *Tribune*, 14 April 1903, p.5.

⁹² NNR-Punjab, *Paisa Akhbar*, 22 February 1898.

⁹³ NNR-Punjab, *Gurakhi*, 19 February 1897.

⁹⁴ NNR-Bombay, *Native Opinion*, 21 February 1897, p.90.

⁹⁵ *BG*, 19 October 1896, p.5.

⁹⁶ MSA, G.D.(Plague) Vol.332,1898. Dr.Weir's Report, p.73.

Spectator and Voice of India clamored for engaging the services of different community leaders.⁹⁷ While never condoning their act, the native press did plead with the public to keep their anger in check.

It was a common sight to see people stoning the contagious diseases vans of the municipality. The Health Officer, Dr. Weir, in his report on the plague, gave an unusual example of the people's opposition to the government measures:

In Kamathipura, a Hindu boy who was living with a Parsi family, contracted plague. Usual arrangements to remove him were made. As soon as the Health Inspector arrived, the Parsi family objected to the removal of the boy. Suddenly thirteen Parsi ladies surrounded the boy with knives in their hands, shouting to kill themselves if the boy was removed. The affair was telephoned to me, the police called and a large crowd gathered. It was dark, so the matter was postponed for the next day.⁹⁸

When Dr. Weir went there the next day, the boy was dead.⁹⁹ Another serious reaction came from a lady named Lakshmi, aged seventy-five. She sold *bidis*¹⁰⁰ and stayed with her son, a fruit vendor, in Kamathipura. Laxmi was ill with the plague. Her son asked her to go to the plague hospital, but while he was away, she swallowed some opium and committed suicide for she preferred death to hospitalization.¹⁰¹

Prophylaxis With Its Accompanying Complexities

A plague vaccine was unheard of until Dr. Waldemar Mordecai Haffkine had prepared one on 10 January 1897, and after having successfully inoculated himself, Haffkine gave public demonstrations and inoculated many distinguished citizens, including Aga Khan.¹⁰² Among the Muslims, the custom of purdah had the force of a religious ordinance, but even in those sections of the population that had nothing to do with the purdah, women objected to exposing their arms and wrists to strange men. The native press appealed for the services of female inoculators.¹⁰³ In Punjab, the upper caste Hindus resisted vaccination on the plea that the vaccines contained substances that were not permitted by their religion. The *Khatris*¹⁰⁴ of Rahon sent a petition to the Deputy Commissioner claiming that the prophylactic serum contained animal matter forbidden by their religion.¹⁰⁵ Where plague inoculations did take place, they were carried out by male medical officers who inoculated both women and men.¹⁰⁶ But in any case,

⁹⁷ NNR-Bombay, *Kaiser-e-Hind*, 1 November 1896; *Prabhakar*, 30 October 1896; *Indian Spectator and Voice of India*, 1 November 1896; *Gujarati*, 1 November 1896.

⁹⁸ MSA, G.D.(Plague)Vol.332,1898, Dr. Weir's Report, pp.59-60.

⁹⁹ Ibid.

¹⁰⁰ South Asian cigarette.

¹⁰¹ *BG*, 4 April 1897, p.6.

¹⁰² Agha Khan III was a crusader against meaningless superstitions, having strongly supported the cause of plague vaccination.

¹⁰³ NNR-Bombay, *Gulzar-i-Hind*, 27 September 1902.

¹⁰⁴ Trading community that originated from the Malwa and Majha areas in the Punjab.

¹⁰⁵ Captain E. Wilkinson, *Report on the Inoculation in Jullundur and Hoshiarpur Districts of the Punjab October 1899-September 1900*, Punjab Government Press, Lahore, 1901, pp.50-51.

¹⁰⁶ Major E. Inglis, *Plague in Jullundur and Hoshiarpur 1897-98*, p.20.

compared to their men-folk, women could benefit much less from inoculation. In a village in Banga circle, only twenty-eight per cent of the women and in another village in Hoshiarpur district, thirty-eight per cent could avail of this preventive measure.¹⁰⁷ This was as much due to ignorance as to the general disregard for women's health. The upper classes threw in the question of honor and custom. The elite among both Hindus and Muslims forbade their women from getting inoculated. The Rajputs believed that exposing their women violated the purdah, while also making it difficult to get their daughters married. The Sayyids believed that their religion forbade women from getting themselves inoculated by men.¹⁰⁸ In time, only the women observing purdah were inoculated in their homes or those of their friends. They covered their arms with muslin and extended them through a small hole in the curtain for inoculation by the assistant surgeon.¹⁰⁹ Interestingly, no serious difficulty was experienced in dealing with the Sikhs. It was as much due to the presence of a large number of them in the British Indian Army, as to the relative absence of the considerations of the caste system and the purdah amongst them.¹¹⁰ Negligence on the part of the local administrators did not go unnoticed. The *Tribune* made frequent references to the most glaring example of negligence -- the 'Mulkowal mishap'. In October 1902, nineteen persons who were inoculated in Mulkowal, Punjab, with the contents of a bottle contaminated with tetanus, contracted tetanus and died.¹¹¹ The implications of this incident for the future of Haffkine's vaccine were to be realized in the years to come.

Popular Medicine And The Plague Goddess

At a time when little was known about the disease and its cure, alternative treatment was offered by both, ordinary people as well as medical practitioners. Some curious instances of treating plague cases have been reported. Some non-medical men prepared plague pills (known to have smelled of camphor and produced cough) and these were sold everywhere by hawkers; sold very cheap and were generally purchased by the middle class.¹¹² There was talk of an antidote (a preparation of Messrs. Bradley & Company, of Byculla, Bombay) that cured a large number of people within a span of three weeks.¹¹³ A Tramway Conductor's method of treatment was widely known to the public. It was a mixture, to be taken along with alcoholic stimulants.¹¹⁴ Vishram Babaji Naik, a firewood-seller, is said to have cured more than five hundred cases over a period of four months. For internal use, he prescribed a mixture in brandy, and for the external, he prescribed an ointment prepared by him.¹¹⁵ Mr. Damanwallia, in a bizarre statement, said that he had seen five cases in which buboes were treated with the application of live frogs. The frogs were cut transversely and applied to the buboes, a bandage being passed round to prevent the frog from escaping. The first frog thus applied, generally died within five minutes, the

¹⁰⁷ Captain E. Wilkinson, *Inoculation in Jullundur and Hoshiarpur 1899-1900*, vi-vii.

¹⁰⁸ *Ibid.*, 50-51.

¹⁰⁹ Captain E. Wilkinson, *Inoculation in Jullundur and Hoshiarpur 1899-1900*, pp.47-49.

¹¹⁰ *Ibid.*

¹¹¹ *Tribune*, 24 March 1904, pp.2-3.

¹¹² *BG*, 13 October 1896.

¹¹³ *BG*, 17 December 1896.

¹¹⁴ *BG*, 21 December 1896.

¹¹⁵ *TOI*, 19 January 1897.

second lived for about 10-15 minutes, the third dying after about half an hour. The fourth and fifth frogs lived for about 2/3/4 hours. The patients appeared to find great relief from that kind of treatment. Of the five cases treated in this manner, three recovered and two died.¹¹⁶ Amidst such strange remedies, there was felt, a need to have all medical practitioners registered. The supporters of western medicine called for a stringent law for medical registration. They expressed fears that native *vaid*s (Ayurvedic practitioners) diagnosed everything as plague, using questionable methods of treatment. Said one, "If a layman gave a strong dose of aconite to another and killed him, it would be murder, but if he goes by the name of a *vaid*, it is nothing."¹¹⁷ It was, therefore, suggested that the government deal a death blow to unqualified practitioners, for it would be impossible to fight the plague if there were no skilled and registered professionals to fight it with. A Medical Registration Act was, however, to become a reality only later in the twentieth century.

As late as 1903, among the plague healers of Bombay was one Bhagirathi who claimed to have been possessed by the goddess Kali. Her method of cure was extraordinary and revolting. She would bite the bubo of a plague patient and press it with the right toe. Great crowds would gather around her hut. Plague patients were brought there and she would treat them on the spot. The police, however, arrested her for endangering public health. This case was most extraordinary.¹¹⁸ Several papers covered the trial of Bhagirathi.¹¹⁹ It was reported that it was foolish to drag her to court on the absurd plea that she was helping in spreading the disease. It was widely believed that Bhagirathi was practicing the art of curing plague as she knew it, and the mere fact that a number of plague patients were taken to her for treatment could not constitute an offence of spreading the plague as was argued by the Presidency Magistrate. The last that one heard of the plague goddess Bhagirathi was that she had "shifted her abode" to Sakhar (Alibag), a village in the Kolaba District. It is said that the fame of the goddess having spread to Sakhar, the people of the village sent a deputation to Bombay to invite her to their village. Having accepted the invitation, she was taken to Sakhar with pomp and ceremony. People from the surrounding villages flocked in large numbers to pray for her benedictions, making offerings of flowers, coconuts, and even money in plenty. The people of Alibag had such blind faith in her that at Karanja, a temple is reported to have been built in her honor.¹²⁰

Making Sense of the Plague Years

One might wonder if the colonial plague measures were sabotaged by indigenous resistance. If not, one might think that perhaps these measures were flawed or that plague could not have been kept at bay, mainly due to the inability of the Indians to comprehend it. The anti-plague campaign was not quite successful in its initial phase perhaps due to plague transmission being incomprehensible to the medical and health authorities. While

¹¹⁶ *Mahratta*, 19 March 1899.

¹¹⁷ *TOI*, 1 March 1897.

¹¹⁸ *Dnyanodaya*, 5 March 1903.

¹¹⁹ *Mahratta*, 15 March 1903; *NNR-Bombay, Gujarati*, 15 March 1903; *Rast Goftar*, 15 March 1903.

¹²⁰ *NNR-Bombay, Sanj Vartman*, 28 April 1903.

the plague bacillus had been discovered earlier, the mechanism of plague infection was unknown. The authorities were convinced that plague was contagious and that infection was spread through food, air and clothing. The disinfection of contaminated places and the segregation of the uninfected from those infected were based on this misplaced conception of the disease being an air-borne infection. Plague therefore continued to spread since there were no special measures taken to destroy rats or to eliminate all possibility of contact between humans and rat fleas. Disinfection did not permanently disrupt the chain of infection, but might have, instead, assisted in its spread to other locations. Again, quarantining plague victims immediately upon infection might have prevented pneumonic plague but it was practically useless against bubonic plague. The British administrative structure comprised complex layers of governance, and the objective of this paper has been to explore those informal relationships which were perhaps more significant in gauging official sentiments. Conflicting theories of disease transmission and dissemination prevented a consensus on plague measures. If one is to evaluate the plague policy of the Indian Government, one hardly finds any clarity of vision. This was probably due to the fact that the government had to work within certain limitations. Firstly, a plague policy had not yet evolved prior to the epidemic and lessons were learnt the hard way. In a country as culturally diverse as India, plague measures tended to offend rather than appease the masses. Secondly, the confusion was confounded on account of the difference of opinion that pervaded the various levels of colonial hierarchy as was evident from discussions, especially between Viceroy Elgin and Secretary of State, Hamilton. The Government was ill advised to institute very stringent measures. The excessive use of the search parties created social and political hardships. Their high-handed attitude neither mitigated plague nor pacified the people. After years of consistent and patient endeavors on the part of Elgin, the plague policy which laid stress on the isolation of the sick, disinfection and a preference for coercion, gave way to compliance of the regulations through persuasion. Elgin maintained a united administrative front by always consulting local and provincial authorities while taking important decisions. His policies were by no means liberal, but they were decidedly motivated by deliberate caution. Early twentieth-century discoveries about the mechanism of plague transmission were of course significant in controlling the disease. After conclusive evidence had been accumulated, establishing the rat-flea-human transmission in 1910, the notion of plague contagion was abandoned in favor of fumigation (which replaced disinfection) to target fleas. Sanitary policies aimed at making go-downs, houses and huts impenetrable to rats. As a result of these measures, there was a sharp decline in plague mortality after WWI.

If segregation represented the then existing state of scientific knowledge in dealing with communicable diseases, inoculation was new and on trial, but both were deserving of consideration. What was needed was further investigation of Haffkine's vaccine with a view to placing the question of the efficacy of this serum on a sounder basis. The protective value of the vaccine in 1925 was far greater when compared with that which was formerly prepared. In time, the plague vaccine, as prepared at the Haffkine Institute, by the use of standardized methods of manufacture, became a product of regular consumption and strength, and the biological methods of testing showed it to be of regular and high immunizing value. No serious problems were encountered with regard

to untoward reactions, except for moderate constitutional reactions which were not uncommon. However, bitter controversy continues even today between advocates of compulsory vaccination and its opponents. From time to time, health authorities have faced the question of whether to keep compulsory vaccination in force (for most diseases) or to keep it voluntary. The plague epidemic has been a lesson in this respect, making a case for compulsion to be used sparingly since it might result in objection on cultural grounds. Today, opponents of compulsory immunization continue to invoke religious freedom with certain religious sects seeing red. The fear of complications that might occur continues to make others indifferent to vaccination. But while vaccination might be compulsory or voluntary, health education is indispensable today as it was at the height of the plague years. Health education should be considered as an integral aspect of every mass immunization campaign. Persuasion is perhaps the most powerful weapon when compared with legal regulations. Nothing can be further from the truth that, "Nothing is accomplished by public controversy...Far greater good comes from quiet and dignified public and personal education."¹²¹ Vaccination programs should at best become "the people's program with government participation" rather than "the government's program with people's participation."¹²² India's tryst with plague has brought to the fore questions of social responsibility, individual freedom and of course concern for one's own. Shared fears and apprehensions had the ability to unite people. On the other hand, latent social tensions and other antagonisms within its social fabric were magnified, revealing much about the way societies are structured and the manner of their functioning.

¹²¹ World Health Organization, *The Role of Immunization in Communicable Disease Control*, Geneva, 1961, p.99.

¹²² *Ibid.*, p.106.