

# The Return of Epidemics and the Politics of Global–Local Health

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With fears of global health epidemics (of reemerging infectious diseases) having escalated over the past few decades, we must ask how we understand the diverse responses to such outbreaks. I explore a single event that merits revisiting—the 1994 outbreak of plague in Surat, the commercial capital of the Indian state of Gujarat—in an attempt to answer this question. I trace responses at various intersecting levels of public health and political authority—global, national, and local—as they interacted with each other and expressed specific political concerns and social anxieties during this outbreak. (*Am J Public Health*. 2011;101:1032–1041. doi: 10.2105/AJPH.2010.300026)

**THE 1994 OUTBREAK OF THE** plague in Surat, a city in the western India state of Gujarat, was dogged by two debates: whether it was indeed the plague and what was the place of the outbreak's origin. The ideas and interpretations voiced in response to the epidemic by the World Health Organization (WHO), the central government of India, and the state government of Gujarat help us understand differing institutional priorities and perceptions of public health. They also raise a key issue in public health pandemics today: whose voice counts more during a public health crisis? Further, what are the beliefs and anxieties, contemporary as well as historic, that

color responses to outbreaks? The absence of clear agreement amongst the different authorities on how to handle the Surat outbreak created the space for several actors to project their political agenda and competing priorities.

I argue, however, that there are several concentric circles within which public health and its politics exist, and the overlap among them must be analyzed to more efficiently respond to outbreaks of epidemics. I used the chain of events and responses to the Surat epidemic, with its disparate resonances at various levels, as an example to help us understand epidemic outbreaks, from a comprehensive and interconnected perspective, as being simultaneously local and global events. I drew upon a WHO archive, international reports as well as government correspondence, scientific investigations, and press-based reporting to map these views and priorities.

## AN OUTBREAK AND ITS POLITICS

On September 25, 1994, the *New York Times* reported rising

international fears of the spread of what was suspected to be pneumonic plague in the city of Surat. In what would be the first of a series of reports on the outbreak, the article voiced fears of the spread of the epidemic beyond Surat because of the recent departure of nearly 300 000 people from the city.<sup>1</sup> As the epidemic progressed, generating panic in trade and travel, a total of 5150 suspected cases and 53 deaths were reported across India before it ultimately ran its course.

The *New York Times* report also highlighted the confusion caused by the lack of confirmation regarding the nature of the outbreak. Its correspondent quoted an Indian government press brief stating that “experts of . . . [the] National Institute of Communicable Disease . . . had reached Surat [and] had confirmed . . . the diagnosis.”<sup>2</sup> However, it also juxtaposed a press statement made by a top state government official, the Chief Minister of Gujarat, who was quoted as saying that the disease “cannot be the plague,” and was more likely to be pneumonia.<sup>3</sup>

Panic regarding the epidemic and doubts about its diagnoses were not restricted to the central and state governments or the international press, however. It also found resonance in the following months among international agencies such as the WHO. Following a report submitted by a WHO International Plague investigation team in October 1994, WHO Director General Hiroshi Nakajima issued an ambiguous statement that “There is plague in Surat but cannot be confirmed . . . .”<sup>4</sup>

Studies on epidemics and responses to them have argued that “acts of agreement” between key actors regarding the nature and definition of an epidemic are critical to clarifying courses of action such as policies, practices, and protocols.<sup>5</sup> Consensus in identifying an outbreak helps define the roles of key protagonists, including international actors (in this case the WHO) and central and state government agencies.<sup>6</sup>

I argue that the absence of clear consensus regarding the nature of the epidemic in Surat created an undefined and uncertain space. In such a situation, competing political interests and visions came into intensified conflict because of the anxieties generated by a public health crisis. The availability of detailed archival sources at various levels of this interaction—within health organizations, policymakers, and debates in the public sphere—make it possible to trace and understand the roles of different agencies and their sociopolitical context. In this article, I explore the nature and repercussions of these conflicts.

I use the categories of “global” and “local” not only as distinct spaces but also as representing

the interests, mobility, and interconnectedness of various actors and events as they played out during the outbreak.<sup>7</sup> Both of these terms also represent concerns relating to national sovereignty and security that were central to the evolution and emergence of new ideas and agendas in global health and its governance during the 1990s.<sup>8</sup>

The agendas of governments and international health organizations during new and reemerging infections need, therefore, to use the lessons learned from earlier challenges in mobilizing national political will and the pursuit of successes in international disease eradication campaigns<sup>9</sup> as well as be rooted in the politics of global risk perception and contagion that were associated with AIDS in the 1980s.<sup>10</sup>

Recent studies have explored reemerging infections and the plague in the context of an urban political economy of the locality<sup>11</sup> and have also surveyed shifts in global public health governance.<sup>12</sup> This study, however, has an alternate focus, in that it simultaneously explores the multiple levels of narrative—both global and local—that emerged and overlapped during the epidemic outbreak. Understanding these ideas and responses helps unravel the complex challenges associated with naming outbreaks and their public health and political implications.

### THE SURAT PLAGUE AND THE WHO

Just as he arrived in Washington, DC, on October 3, 1994, Hiroshi Nakajima, director general of the WHO, received a message from his office in Geneva, Switzerland.<sup>13</sup> His aide

informed him that an emergency meeting of the Regional Committee had convened in Geneva to discuss the recent outbreak of plague in India. This meeting resulted in member states strongly pressing Nakajima to visit and verify plague containment efforts in India. As international concern mounted over the following weeks, Nakajima succumbed to growing pressures.<sup>14</sup> He made a hastily planned visit to India, including to the plague-gripped city of Surat, to be apprised of relief measures and offer WHO support to India, if needed.

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Nakajima’s visit and the interventionist role assumed by the WHO during the plague—in initiating an investigation report around the outbreak—were unusual relative to earlier such precedents set in the region. Resistance to such initiatives by national governments, like the resistance offered by India, was, however, more typical. Yet, the WHO in the coming months and years would cite the Surat episode as a key example of the importance of enhanced disease surveillance at a global level. The outbreak also reflected and further shaped the ongoing recalibration

of the WHO's broader priorities in global health.

In the decades preceding the plague outbreak in Surat, the WHO had already begun to deprioritize plague surveillance. Despite the plague being listed in WHO regulations among infectious diseases of international significance and the noted prevalence of sporadic cases across the world, the absence of large outbreaks and the availability of chemoprophylaxis implied that there was diminishing enthusiasm for plague surveillance among many member states.<sup>15</sup>

Between the 1960s and the 1980s, following discussions with the WHO's regional Southeast Asia Region Office (SEARO), states such as India increasingly began to redeploy plague personnel and initiated the closure of surveillance units.<sup>16</sup> Issues of plague surveillance were regulated by the procedures laid down in the international health regulations (IHRs) and often also resulted in friction between member states and the WHO. Recent studies of the IHRs<sup>17</sup> argue that these regulations were constantly compromised between their objectives of ensuring full-est disease outbreak reporting and ensuring minimum interference in the sovereign realm of state authority.<sup>18</sup>

In the case of the plague in the Southeast Asia region, failures in reporting despite IHR requirements had several precedents before the Surat outbreak. For instance, the WHO often learned of outbreaks either from press reports or from watchful neighbors—such as in the case of plague outbreaks in Chinese–Mongolian border posts<sup>19</sup> and Hanoi, Vietnam<sup>20</sup>—rather than by direct disclosure from the concerned authorities.

In the case of India, the government did not report plague outbreaks to the WHO that had occurred in the southern city of Coimbatore (1967) and in a village in northern India (1983).<sup>21</sup> News of an outbreak of bubonic plague in the village of Beed<sup>22</sup> immediately preceding the 1994 Surat event was broken by the local press<sup>23</sup> rather than through government disclosure. Following the Beed outbreak, the WHO wrote to the Indian government for clarification.

The chain of events during the Surat outbreak followed a similar pattern. The initial cases reported at the Surat Medical College Hospital on September 19, 1994, were broadcast by the media; the state government maintained that it was not the plague until September 25.<sup>24</sup> In the weeks following the outbreak, media publicity grew regarding the lack of certainty about the nature of the epidemic. It was, however, pressure from neighboring countries, including trade partners (such as those at a meeting of the Bahrain representatives),<sup>25</sup> that finally propelled the Indian authorities to agree to the WHO's proposal to send in a neutral international investigation team.<sup>26</sup>

The WHO investigation team started its work on October 7, 1994, with the mandate of investigating the plague situation in India.<sup>27</sup> Its report comprised a situation analysis of Bombay, New Delhi, Calcutta, and Madras, and included a special epidemiologic study of Surat.<sup>28</sup> However, the WHO investigation report that followed these investigations advanced only “presumptive conclusions,” stating that

*Yersinia Pestis* is the likely causative agent of the Surat outbreak . . . [However] the identification of plague as cause of

the outbreak cannot be established in the absence of confirmed isolation . . . from clinical materials. . . .<sup>29</sup>

The inconclusive findings of the WHO continued to create the grounds for competing interpretations of the outbreak.

Meanwhile, the WHO also encountered further pockets of resistance from the Indian government in areas such as sharing technical information. The Indian government permitted access to laboratory samples—held at the National Institute of Communicable Disease (NICD) and Surat—to WHO-collaborating scientists at the Centers for Disease Control and Prevention (CDC) only after they complained about delays.<sup>30</sup> One member of this team complained that the controversy over the sharing of samples, which he termed “science by the press,” reflected India's efforts to demonstrate its superior technical competence and control over the plague situation rather than a desire to facilitate clinical testing.<sup>31</sup>

When faced with pressure from the Indian government and the national press regarding its intervention and investigation, the WHO tempered its response<sup>31</sup> and adapted to “unexpected problems”<sup>32</sup> and local developments, as had been the case with previous disease eradication campaigns such as smallpox and guinea worm. The WHO recognized its limitations when faced with Indian resistance to the appointment of the investigation team, and the agency regional office maintained open channels with the Indian Ministry of Health regarding its investigatory report and plague-related trade embargos and quarantines.<sup>33</sup>

Overall, the Surat outbreak provided the WHO with a vital opportunity to engage in a more

interventionist strategy, rather than serving simply as “an information clearing house, involved in cross border traffic” that had been “typical of the classical regime of disease control” associated with the IHRs.<sup>34</sup> This new role was brought on initially by pressure from panicked member states but was later supported by the WHO’s own evolving priorities. Understanding the WHO’s interpretation of its role and its recollection of lessons from the Surat outbreak is a matter of great importance because it became an important reference point for efforts to find support for a global network of disease surveillance and ensure greater cooperation from states in public health governance.

The WHO’s interpretation of the plague outbreak must be framed within its efforts in the 1990s to explore a new global role for itself.<sup>35</sup> The effort to mobilize support for a new agenda among WHO advocates was drawn in part from challenges to its resources and role because of fund deficits and the competing roles of the United Nations Children’s Fund (UNICEF) and World Bank,<sup>36</sup> in addition to an emerging interest in forming new alignments and seeking support through private foundations and partnerships.

The WHO’s concerns regarding reemerging infections and global disease surveillance networks also stemmed from concerns voiced among United States–based agencies such as the CDC and the Institute of Medicine regarding the threat posed by new and reemerging infections to human security and social stability in the new, interconnected geopolitical landscape of global health.<sup>37</sup> These infections, with their epicenters in

Asia and Africa,<sup>38</sup> were associated with HIV/AIDS and recent outbreaks such as monkeypox, hemorrhagic fevers, and drug-resistant tuberculosis.<sup>39</sup>

The plague outbreak in Surat represented an important chance for the WHO to make an example of the epidemic. For instance, after the outbreak ended the WHO held an interregional conference on the plague, during which its leadership, headed by Director General Nakajima, urgently advised the scaling up of plague preparedness and surveillance networks from the community to the global level and stated, “the outbreak of plague in India . . . was of global concern.”<sup>40</sup> By 2003, as the WHO initiated measures to amend the IHRs after the SARS (severe acute respiratory syndrome) epidemic,<sup>41</sup> the Surat outbreak was cited as an example of the need to deepen mechanisms of state disclosure at the time of epidemic outbreaks.

### THE INDIAN STATE AND THE PLAGUE

Meanwhile, the Indian government responded to the growing public debate over the origins of the epidemic<sup>42</sup> and adverse international coverage<sup>43</sup> by instituting a scientific investigation. In October 1994, the central government appointed a Technical Advisory Committee (TAC) on the plague comprising scientists drawn from leading government research institutions.<sup>44</sup> The TAC was formed with the objective that its first order of priority<sup>45</sup> was to investigate the origins or etiology of the plague.

The final report of the TAC proved to be critical for the government because it confirmed that the causative agent of the outbreak was the plague. It

cautioned that the isolation work on the Surat samples had been done on preexisting and contaminated cultures, but the committee still concluded “that the pneumonic outbreak in Surat was due to *Y. Pestis* is now established beyond doubt. . . .”<sup>46</sup> This conclusion validated the adoption of plague-control measures such as the distribution of tetracycline prophylaxis, DDT spraying, hospital confinements, and other policies in Surat and other cities. Even the use of the Epidemic Diseases Act (1897)<sup>47</sup>—which had evoked resentment because it legitimized measures such as restricting rail and air traffic, quarantining plague suspects in hospital wards, and allowing surveillance teams to perform house-to-house checks—was justified as the correct course of action.

More interestingly, the TAC report is significant in that its recommendations provide an insight into the plans and political priorities of the Indian state. It traced the possible origins of the plague strain carefully, citing detailed stages of laboratory testing. The report also explained that the causative organism of the Surat plague strain demonstrated an unusual or new ribotype formation, observing that “the ribotypes and 25 KD protein band so distinctively seen in the Surat strain are not pre-existent [and this] needs to be explored first.”<sup>48,49</sup> The report was not able to explain the unusual and new molecular traits of the Surat plague strain in a definitive manner; the new plague strain could not be compared in definitive terms with older, indigenous ones because

the only isolate ribotyped from India was collected in 1908 and very few other Indian isolates are available over the past few years. . . .<sup>50</sup>

This ambiguity left open the possibility of the outbreak being caused by a genetically engineered strain, but the TAC dismissed the possibility, quoting the views of a leading scientist at the Institut Pasteur who had done the ribotyping of the new strain from Surat, who stated that she thought it “highly unlikely that the new ribotype found in Surat is a consequence of genetic engineering.”<sup>51</sup>

The Surat plague strain, according to the TAC report, had no obvious epidemiological history, so it was not surprising that the report and other government statements during the epidemic made only a cursory mention of the third plague pandemic<sup>52</sup> in British India during the turn of the century. This argument implied that the plague had not emerged from preexisting, local foci (overwhelmingly located in poor undeveloped regions in which plague outbreaks continued to occur)<sup>53</sup> that plague prevalence maps commonly identified. Instead, the report argued that genetic mutation located the origin of the plague strain outside India, therefore reversing notions of developing countries such as India being the site of diseases and contagion. Global mobility and its related technological capabilities were identified as potential sites of the origin of the strain, spurred by motives of bioterrorism that were a potential threat to countries such as India. These ideas were also rooted in older fears that viewed the plague threat as representing an act of invasion.

The Indian state and press played on these insecurities, particularly in regards to hostile South Asian neighbors, and on the concept of India being under microbial attack and siege rather

than being the source of the disease.<sup>54</sup> The term “surveillance” was used by both groups to refer to disease surveillance and security concerns regarding India’s geostrategic borders and tensions. These fears of compromised domestic security also stemmed from the Indian state’s anxieties regarding initiating structural reforms and opening up its economy to globalized markets in the 1990s and were colored by perceptions of growing regional tensions, because India, it was felt, had demonstrated a greater interest in integrating with the global economy rather than in strengthening regional partnerships and cooperation among its neighbors.<sup>55</sup> By discussing these issues, the TAC report clarified the role of persistent regional tensions and national preoccupations that colored the politics of locating the origins of the outbreak.

The TAC report’s responses also indirectly addressed criticism from within India regarding the implications of liberalized economic and social policies. Critics commented that epidemics were now endemic and that the plague was a consequence of the government’s withdrawal from the social sector and the resultant reduction in funding for infectious disease programs.<sup>56</sup> The TAC, in turn, responded to this critique by elaborating on its proposal to set up a new, integrated surveillance and response network in India. This national surveillance network was projected as offering an effective, preventive response to infectious disease threats and as being complementary to the state’s project of market liberalization because it promised to translate the benefits of the latter into social returns.<sup>57</sup> The new integrated

disease surveillance project also identified a partnership with the WHO with the latter playing a limited role—only in the event of outbreaks of international significance<sup>58</sup>—and in helping to liaison<sup>59</sup> with neighboring countries.

The TAC report also addressed a key concern voiced by the Indian government during the outbreak—namely, that of the erosion of India’s public image in the international arena. Media coverage on the plague and reports regarding India’s socioeconomic backwardness were perceived as setting back India’s carefully cultivated image and plans to join the “global village.”<sup>60</sup> These concerns were also reflected in reports and writings (editorials, letters to the editor, opinion pieces, etc.) in the Indian media that criticized the patronizing images of India that were presented in the international press.<sup>61</sup> Some of these writings—aimed at an audience of urban, middle-class Indian readers—observed that the international press in its Orientalist assumptions was choosing to conveniently forget that the modern West too could be the site of threatening and “medieval” infectious diseases and that “in the eyes of the occidental correspondents, globalizing India has given way to medieval India.”<sup>62</sup> Others viewed these international media reports as representing a wider geopolitical plot led by the United States aimed at discrediting India’s image abroad.<sup>63</sup>

Maintaining Indian sovereignty and self-reliance—the latter being a Cold War doctrine dating back from India’s leadership of the Nonaligned Movement—were important determinants for the Indian state’s priorities in matters of allowing access to visiting scientists and in sharing samples.

The need to assume the authority to define and control the outbreak was therefore crucial and the Indian government's responses to WHO interventions and its refusals of offers of assistance, at least initially, from not only the CDC in the United States but also Russian and European assistance, reflected these priorities.

### THE UNDERSTANDING OF DISEASE AND DEVELOPMENT

The creation of the TAC by the Government of India was aimed at limiting the diverse interpretations that emerged during the Surat outbreak. Press reports on the epidemic, however, also put pressure on the state government of Gujarat, which responded to concerns by forming the Gujarat Expert Plague Committee. This creation of this committee and its findings and recommendations reflected a distinct set of priorities and perceptions from that voiced by the TAC report. Provincial authorities in Gujarat sought through the state report<sup>64</sup> to highlight issues such as the tensions caused by centralized governance and interpreted the social context of the outbreak in a different manner from the central government's TAC report.<sup>65</sup>

The report from the Gujarat Expert Plague Committee was based on painstakingly compiled epidemiological data from patient visits, retrospective analysis of about 891 cases admitted to the New Civil Hospital in Surat, and microbiological investigation.<sup>66</sup> Most significantly, it questioned the Indian government's plague diagnosis. The Gujarat report clearly stated that some areas of Surat had suffered from "an epidemic of lower respiratory tract

infection in the third week of September"<sup>67</sup> rather than naming the outbreak as the plague. It also went on to support its conclusions, noting that the source of disease transmission had not been preceded by flea nuisance or by the occurrence of bubonic plague cases that would normally precede an epidemic of pneumonic plague; in addition, there had not been the high levels of infectivity and mortality associated with the latter.<sup>68</sup>

The Gujarat Expert Plague Committee report challenged the issue of the "plague proclamation," alleging that the exercise of the provisions of the Epidemic Diseases Act in Surat and the identification of plague had been prompted by administrative priorities and hurried, initial clinical diagnosis rather than being based on scientific advice from public health experts. The committee observed that "[n]o active effort was made to understand disease transmission and to establish the cause of the epidemic beyond doubt."<sup>69</sup>

The committee also addressed in strong terms the absence of information sharing and transparency in the investigations conducted both by the WHO and the central government-administered NICD. In surprisingly firm language, it complained:

During the epidemic several national and international agencies including national institutes and WHO sent their teams of scientists to help in the investigations of the epidemic . . . but very few gave their feedback . . . to the concerned authorities. . . .<sup>70</sup>

The Gujarat report perceived the Surat outbreak as reflecting an absence of hygiene, brought on by challenges to environmental conditions caused by events such as a flood that had immediately

preceded the epidemic and the urban deterioration that afflicted the city. It traced the repercussions of unplanned industrialization and unregulated migration and saw these conditions as being critical determinants in precipitating a public health crisis. It therefore employed an alternate framework in which to view infectious disease, by examining it in a proximate sense and as being rooted in the local urban environment.<sup>71</sup> This viewpoint was a perception of contagion drawn from an older tradition that associated disease with industrialization and development rather than globalization. For instance, the Gujarat report noted that the Surat Municipal Corporation had created several Industrial Development Estates in the years preceding the outbreak. The city housed large industries and hundreds of textile and diamond manufacturing units. Crowds, garbage, filth, and migration were all cited as being created by this impetus of an unplanned, industrial city. The report concluded that this was "a sad story of rapid development encouraged by Government without any thought regarding aspects related to human welfare and health."<sup>72</sup>

Surat's contagion was in a sense a disease that it had caught from the national mainstream and its priorities—namely, the disease of development or its ill-planned effects. Interestingly, the idea of infectious disease threats based on the environment and location echoed similar expositions voiced during the plague pandemic at the turn of the century<sup>73</sup> and in the views expressed by a landmark Health Survey Committee in the 1940s that was influenced by the tenets of social medicine and marked the internationalizing of health in India.<sup>74</sup>

The Gujarat Expert Plague Committee's views on poverty and social hygiene represented a continuation of these views of social deprivation and health and the lingering concerns regarding industrial development and its welfare challenges. These views were in part a function of the social medicine background of some Gujarat Expert Plague Committee members, unlike the TAC members who were predominantly scientists, including biochemists and virologists.<sup>75</sup> They also reflected the concerns and vision of public health and social deprivation that perceived medical experts as being its socially engaged leaders.<sup>76</sup> However, this vision of deprivation and public health also had its own social constraints because it was based on notions of poverty and of poor, urban migrants as a social problem needing broader welfare measures.<sup>77</sup>

Interestingly, the views put forth in the Gujarat report had a wider public resonance than that of the TAC report. Indian press coverage reflected these visions, commenting upon wider issues of civic decay, garbage, and waste in Surat and other Indian cities, naming it “the refuse of progress.”<sup>78</sup> These observations were not only laced with a strong critique of the Indian state and its “skewed priorities” but also evoked the memory of the colonial plague epidemic to draw parallels with the modern Indian state and its unresponsive and coercive nature.<sup>79</sup> This was a perception of contagion and infectious disease that echoed anxieties voiced by the reform-minded Indian middle classes during the late colonial period. Contemporary observations by middle-class readers and press

commentators reflected concerns regarding a “discourse of deficiency” in India and the lack of a “citizen culture,”<sup>80</sup> and carried fears of migrant populations as threats to respectable citizens.<sup>81</sup> These press reports and their concerns for public health and reform reflected persistent urban, middle-class preoccupations with “the popular blindness in India towards dirt and disease.”<sup>82</sup>

The plague in Surat and the disputed claims that surrounded its identification brought to light several different ways of perceiving infectious diseases that marked both emerging changes and historic continuities. The TAC report projected a strongly germ-centered view that was “postbacteriological.” It identified infectious diseases or their conquest and reemergence as being linked with globalization and its resultant mobility. Disease vectors were mobile, unlike in older conceptions of tropical medicine that represented a diasporeal movement and were rooted in specific places and bodies.<sup>83</sup>

The Gujarat Expert Plague Committee mixed these interpretations. The plague and its origins were linked with human behavior and issues of hygiene.<sup>84</sup> The outbreak was associated with proximate and crowded bodies, habitats, and person-to-person transmission.<sup>85</sup> In this view, contagious disease threats were not eradicated and reappearing but were endemic to a disease-prone environment. By this reasoning, the distinction between epidemics and endemic diseases was virtually dissolved because epidemics could only be visible against a general background of health—which did not exist if the disease was in fact

endemic. Epidemics instead only existed by virtue of the state's power to christen and name a disease as such.<sup>86</sup>

The Surat plague accentuated an older concern in public health rhetoric regarding the understanding of eradication and control of persistent communicable diseases that characterized contemporary debates. Disbelief in successful eradication of infectious diseases as often advanced in public debate in India<sup>87</sup> and in turn fostered the lack of conviction regarding reemerging infections as both rested on the same fulcrum of belief or trust in government health information (in general) and whom it served (in particular).

## SQUARING THE CIRCLES

The outbreak of plague in Surat and the debate over its origins and nature dramatized a cluster of political concerns and social anxieties among international organizations, such as the WHO, the Indian state, and the state government in Gujarat. I argue for the need to view global health priorities as a comprehensive whole, and a singular arena instead of being viewed as distinct levels of international, national, and local interest.

The WHO has a long history of involvement in plague disease surveillance in the South Asian region. Although it experienced state resistance to plague disclosure in earlier instances and adapted to national concerns during the Surat epidemic, its global surveillance agenda prompted enhanced efforts to intervene and later project the episode based on its emerging priorities. The Indian state attempted throughout the epidemic to resist pressures both from above and below and had

to grapple with the newfound influence of a privatized Indian press that broke the news of the epidemic and set off national and international anxieties. In the end, it reluctantly allowed the WHO investigation and worked through the NICD and the TAC report to answer growing public skepticism regarding the epidemic. The plague, therefore, brought out the continuing centrality of the state as the arbiter of defining disease identities, in shaping public anxieties, and in attempting to centralize control through scientific investigation, legal devices such as epidemic declarations, and surveillance information networks.

Finally, the Surat plague highlighted the importance of better understanding overlapping and yet competing perceptions of disease and its causal origins that emerged among local, national, and international actors. Causal explanations for the same event differed widely on the basis of political projects and context, showing that global health crises can reflect several distinct political projects simultaneously.

The debate around the plague outbreak in Surat allows us to explore debates around questions of sovereignty, trace conflicts between state and nonstate actors and their vested interests, and map the importance of regional power relations and national preoccupations in a time of socioeconomic change to clarify the complex ways in which global health agendas and interventions unravel and inform each other among international, national, and local-level actors. This relationship merits investigation because it can help us understand and frame public health concerns today in the

critical context of evolving political cultures and priorities. ■

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### Endnotes

1. J.F. Burns, "Medical Experts Fear Refugees May Spread India Plague," *New York Times*, September 25, 1994, sec. 1, p. 18, New York edition. Reports of the plague would be flashed and discussed in international news wires and reports all over America, Japan, China, Australia, and Europe in the weeks of

September through November 1994. The city of Surat that lay at the epicenter of the epidemic outbreak is located in the state of Gujarat in India.

2. Ibid.

3. Ibid.

4. Press conference, quoted in *The Indian Express*, October 9, 1994, pp. 1, 3.

5. Charles E. Rosenberg, "What Is Disease? In Memory of Owsei Temkin," *Bulletin of the History of Medicine* 77 (2003): 491–505.

6. India has a federal structure of administration and, henceforth, the two tiers of government will be referred to as the "central" government and "state" government, respectively.

7. D. Held, *Democracy and the Global Order: From the Modern State to Cosmopolitan Governance* (Cambridge, England: Polity, 1995): 17–18; Zygmunt Bauman, *Globalization: The Human Consequences* (New York, NY: Columbia University Press, 2000).

8. Theodore M. Brown, Marcos Cueto, and Elizabeth Fee, "The World Health Organization and the Transition From 'International' to 'Global' Public Health," *American Journal of Public Health* 96, no. 1 (2006): 62–72; David P. Fidler, *SARS, Governance and the Globalization of Disease* (New York, NY: Palgrave Macmillan, 2004); Simon Carvalho and Mark Zacher, "The International Health Regulations in Historical Perspective," in *Plagues and Politics: Infectious Disease and International Policy*, ed. Andrew T. Price Smith (New York, NY: Palgrave Macmillan, 2001); Nicholas King, "Security, Disease, Commerce Ideologies of Postcolonial Global Health," *Social Studies of Science* 32, no. 5–6 (2002): 763–789; Anne-Emanuelle Birn, "The Stages of International (Global) Health: Histories of Success or Successes of History?" *Global Public Health* 4, no. 1 (2009): 50–68; Virginia Berridge, Kelly Loughlin, and Rachel Herring, "Historical Dimensions of Global Health Governance," in *Making Sense of Global Health Governance: A Policy Perspective*, eds. Kent Buse, Kent Hein, and Nick Drager (London, England: Palgrave Macmillan, 2009): 28–46, see also the "Introduction," pp. 1–27 in the same work.

9. For an overarching discussion on the continuities in the international–global health agenda and their political construction, see Birn, "The Stages of International (Global) Health." Also, see Paul Weindling, "Social Medicine at the League of Nations Health Organization and the International Labour Office Compared," in *International Health Organizations and Movements, 1918–39*, Paul Weindling, ed. (Cambridge, England: Cambridge University Press,

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11. Reemerging infections such as SARS have been studied by S. Harris Ali and Roger Weil, *Networked Disease: Emerging Infections in the Global City* (Oxford, England: John Wiley & Blackwell, 2008) and for a comprehensive study of the Surat plague, see Ghanshyam Shah, *Public Health and Urban Development: The Plague in Surat* (New Delhi, India: Sage, 1997). See also Arthur Kleinman and James L. Watson, eds., *SARS in China: Prelude to Pandemic* (Stanford, CA: Stanford University Press, 2005).

12. David P. Fidler, *SARS, Governance and the Globalization of Disease* (New York, NY: Palgrave Macmillan, 2004).

13. From Ralph Henderson, Additional Director General, WHO, to Dr H. Nakajima, WHO Director General, Inn at Foggy Bottom, Washington, DC, *Plague in India*, October 1994, p. 1, WHO SEARO [Southeast Asia Region Office] records, SEARO library, New Delhi.

14. Ibid.

15. B. Bytchenko, "Plague as a continuing world problem (1966–1975)," WHO/BAC/PL, 76.1, P6/27/I. WHO SEARO library, New Delhi.

16. WHO Consultation on Plague. New Delhi, September 11–15, 1989; proceedings in Annexure 5, Interregional Meeting on Prevention and Control of Plague, New Delhi, March 13–16, 1995. For earlier discussions, see minutes of meeting regarding WHO assistance to the National Institute of Communicable Disease (NICD), held on April 26, 1978, p. 2, WHO, SEARO, plague files, New Delhi; Minutes of 9th Inter State meeting for the coordination of plague control measures in the three

- states of Andhra Pradesh, Madras, and Mysore, held in Hyderabad, October 7, 1967, pp. 1–13. WHO SEARO, plague files, New Delhi. News coverage of same was reported in *The Hindu*, Bangalore edition, Sunday, May 20, 1990, vol. 113, no. 20, and *The Indian Express*, Bangalore, May 19, 1990. Press clippings in WHO, SEARO plague files.
17. The International Health Regulations enacted in 1969 were relevant in this period of the Surat outbreak, see WHO, *International Health Regulations*, 3rd ed, (Geneva, Switzerland: World Health Organization, 1983). Also, Socrates Litsios, *The Third Ten Years of the World Health Organization, 1968-77* (Geneva, Switzerland: WHO Press, 2008): 175–177.
18. For a discussion of the origins of the IHRs, 1969, and its reform, see Simon Carvalho and Mark Zacher, “The International Health Regulations in Historical Perspective,” in *Plagues and Politics: Infectious Disease and International Policy*, ed. Andrew T. Price Smith (New York, NY: Palgrave Macmillan, 2001): 235–259.
19. Complaint by Mongolian Government regarding forcible vaccination by Chinese authorities, WR/BJG/RM/097, for WR/Beijing. Regular monthly record of meeting held on December 22, 1992 (restricted), WHO SEARO office; letter from Ministry of Health (MoH), Mongolia to Regional Director (RD), WHO, SEARO, Delhi, January 18, 1993, Ref. 5/22, January 6, 1993. Also reported in letter dated January 6, 1993 from the MoH, Mongolia cited in fax message no. 257, for RD, to Chief, MIM/HQ dated January 25, 1993, File 18/27/I-MOG received January 28, 1993, WHO, SEARO library.
20. Letter from Dr B. Velimirovic, Communicable Disease (CD) Adviser, Phnom-Penh to Chief, ESCD, HQ, Geneva, (WP) P4/27/1, September 22, 1971. Regarding return of plague isolates taken by WHO, letter from Dr Tan Swe, Director, Research, Myanmar to Director, Institut Pasteur and marked to RD, WHO, June 22, 1992; Letter no. V2/446/21 from WHO Geneva (last page and signature missing) to Dr Hla Naing, Rodent Control Demonstration Unit, June 1, 1983, WHO, SEARO.
21. Reported in WHO Pacific Region Office Memorandum to Chief, ESCD/HQ, November 3, 1971, WHO, SEARO library. Regarding plague in a remote mountainous village, see letter from Dr S.K Sengupta, DDG (P), DGHS, Government of India to WHO Pacific Region Office on July 10, 1983 regarding the “mysterious disease.” See *Plague in Himachal Pradesh, India* with reference to memorandum from WHO Pacific Region Office dated September 30, 1983. Press reports followed, such as *The Statesman*, September 23, 1983, extract quoted in WHO files, September 1993, copy to Pacific Region Office, India, WHO, SEARO.
22. The town of Beed lies near Latur city and district in the western state of Maharashtra in India. The latter suffered from a devastating earthquake (on September 30, 1993, with about 30|000 casualties) and was associated with the emergence of epizootic plague cases. The western state of Maharashtra is adjacent to the state of Gujarat, where the pneumonic plague cases in Surat occurred.
23. A local newspaper reported this news on September 15, 1994. Briefing for Director General, Dr Hiroshi Nakajima on the plague situation in India, SEARO memorandum, P6/27/I-IND, p. 1.
24. On September 24, the Union Minister for Health visited the afflicted area in Surat and a team from the National Institute for Communicable Disease in Delhi visited the city to make an initial investigation.
25. Plague in India, SEARO memorandum, PCD for RD, all WRs (in SEARO), P6/27/1-IND, November 7, 1994.
26. Ibid.
27. It was constituted under the terms of reference under the IHR Article 11 that allowed for on-the-spot investigations. The international team prepared and submitted its report between October 13 and 26, 1994. World Health Organization Plague Investigative Team Report, October 13–26, 1994. Regarding initiation of WHO plague investigation, letter from Dr Nakajima, DG, WHO to MoH & FW, GOI; also *Plague in India: World Health Organization Team Executive Report*, October 25, 1994.
28. *Plague in India: World Health Organization Team Executive Report*.
29. The bacterium that causes plague. Executive Summary, *Plague in India: World Health Organization Team Executive Report*, October 25, 1994.
30. Proposal for work on identification and confirmation of *Yersinia pestis* infections from Surat and Maharashtra, by Mary C. Chu, WHO Regional Laboratory for Plague Reference and Research, Fort Collins, CO, November 18, 1994, pp. 1–10.
31. Ibid.
32. Sanjoy Bhattacharya, “The World Health Organization and Small Pox Eradication,” *Journal of Epidemiology and Community Health*, no. 62 (2008): 909–912.
33. Letter from DG to WRs (in SEARO), Geneva, October 27, 1994, C.L.23.1994, received by Dr Samlee on September 11, 1994, P6/27/1-IND; Letter from Joint Secretary, MOH, GOI, to RD, WHO, SEARO dated July 11, 1994, January 1995, Jacket 4. Letter from DG, WHO, Geneva to all WRs in SEARO, C.L. 23.1994, October 27, 1994, p. 1; Fax, Dr Samlee, PCD for RD to Dr Doberstyn in Washington, DC, October 13, 1994, P6/27/1-IND, 1994.
34. Fidler, *SARS, Governance and the Globalization of Disease*.
35. Many studies have brought out and analyzed this trend. See for example Brown, “The World Health Organization and the Transition,” 62–72.
36. S.A. Staples, *The Birth of Development: How the World Bank, Food Agricultural Organization and the World Health Organization Changed the World, 1945-65* (Kent, Ohio: Kent State University Press, 2006). See in particular Chapters 8 and 9, pp. 122–160, and for challenges to WHO authority in the years of and following the Malaria Eradication Program, see Chapter 10, pp. 161–179.
37. J. Lederberg, Robert E. Shope, and Stanley C. Oaks Jr, eds. *Emerging Infections: Microbial Threats to Health in the United States* (Washington, DC: Institute of Medicine, National Academy Press, 1992): Preface, v, vi.
38. M. Yichen Lu and Bryan Roberts, *Emerging Infections in Asia*, (New York, NY: Springer, 2008), Foreword, 7.
39. See W. Michael Scheld, Donald Armstrong, and James M. Hughes, eds. *Emerging Infections*, 1, (Washington, DC: American Society for Microbiology, 1998); Jennifer Brower and Peter Chalk, *The Global Threat of New and Re-emerging Infectious Diseases: Reconciling U.S. National Security and Public Health Policy*, (Santa Monica, CA: RAND, 2003): 102.
40. Interregional Meeting on Prevention and Control of Plague, WHO, New Delhi, March 13–16, 1995, Annexure 6, p. 2. See also p. 18.
41. See Fidler for a discussion of public health and its relationship with international political structures preceding and following SARS, including the changing role of nongovernment agencies in reporting surveillance information: Fidler, *SARS, Governance and the Globalization of Disease*: 57–68, 161, 166.
42. G. Shah, *Public Health, and Urban Development: The Plague in Surat* (New Delhi, India: Sage, 1997): 213.
43. For instance, Jefferson Penberthy, “One Man Against the Plague,” *Time*, October 2–8 Dispatches, October 17, 1994, Volume 144, Issue 16, p. 22.
44. Government of India (GOI) order T.21011/8/94-PH, Ministry of Health & Family Welfare, New Delhi.
45. Its other objectives included “to elucidate factors responsible for the current outbreak of plague and its spread; to advise on strategies, policies and programs for the control of plague and to recommend steps for the prevention of such outbreaks in the future.”
46. TAC report, pp. 6–7.
47. Epidemic Diseases Act, 1897 (Act III of 1897), no. 443, February 4, 1897.
48. A technique used to determine genetic and evolutionary relationships between organisms.
49. TAC report, pp. 4–5.
50. TAC report, pp. 37–38.
51. TAC report, p. 38.
52. TAC report, pp. 37–38.
53. The identification of endemic plague sources in the world.
54. Letter to editor from Sharad Mishra, *Indian Express*, October 10, 1994; for a discussion on fears of agricultural sabotage in India and bioterrorism, see Laurie Garrett, *The Coming Plague: Newly Emerging Diseases in a World Out of Balance*, (New York: Harper Collins, 1994), p. 603, and Chapter 17, “Searching for Solutions,” pp. 592–620.
55. With the exception of Sri Lanka, which initiated market reforms earlier in the late 1970s, ahead of other South Asian countries. Abdur Rob Khan, ed., *Globalization and Non-traditional Security in South Asia, Regional Center for Strategic Studies*, (Dhaka, Bangladesh: Academic Press, 2001): 19.
56. Imrana Qadeer, K.R. Nayar, and Rama V. Baru, “Contextualising Plague: A Reconstruction and an Analysis,” *Economic and Political Weekly* 29, no. 47 (1994): 2981–2989.
57. TAC report, p. 38.
58. TAC report, p. 17
59. Ibid.
60. TAC report, pp. 11, 73–75; see also Report of Expert Committee on Plague in Gujarat (this report is discussed in detail in the following section), pp. 58–59, 76.
61. S. Ghose, “Plague as example of Orientalism,” *The Times of India*, October 7, 1994.
62. Ibid.
63. S.G. Lin, “Geopolitics of Communicable Diseases in Surat, 1994,” *Economic and Political Weekly* 18 (1995): 2912–2914.
64. Henceforth, in these endnotes, the Report of the Expert Committee on

Plague set up by the Gujarat government will be referred to as "RECG."

65. The TAC report was presented to the Parliament nearly 9 months after the TAC was constituted and after the Gujarat Committee Report had been finalized. Both reports represented different impulses and interpretations of the epidemic and the implication is that they were not constituted to challenge each other.

66. RECG, p. 9.

67. RECG, pp. 6, 47. Reported on September 21, 1994, by a professor of medicine at the same college.

68. RECG, pp. 6, 49.

69. RECG, pp. 23, 61–62. The report categorically stated that "The evidence available to the Committee so far was evaluated and the Committee feels that it does not support the bacteriological diagnosis of plague," emphasis in text, p. 62.

70. Restated on page 66.

71. RECG, p. 66.

72. RECG, p. 75.

73. President of the Plague Research Committee II, Report by Surgeon-Captain Childe, I.M.S. II. Summary of work carried by Mr Hankin. IP/13/ PC2, originally set up in 1896 to enquire into the nature and history of the plague in Bombay City, p. 5.

74. Sunil Amrith's discussion on the Health Survey Committee Report (1944) headed by Sir Joseph Bore in *Decolonizing International Health: India and South East Asia* (Basingstoke, England: Palgrave Macmillan, 2006). For an earlier discussion, see Pratik Chakrabarti, "Signs of the Times: Medicine and Nationhood in India" *Osiris* 29 (2009): 188–211.

75. The composition of the Gujarat plague committee consisted of a majority of public health experts, and included pathologists and clinicians and the TAC was led by a microbiologist and other scientists. Interviews with Dr Dileep Mavalankar, Indian Institute of Management, Ahmedabad, and Dr Vasudev Raval, PSM Medical College, Ahmedabad, Members of the Gujarat Expert Plague Committee, April–May 2008, in Ahmedabad and Gandhinagar.

76. For a discussion on various interpretations of social medicine and international health institutions, see Weindling, "Social Medicine at the League of Nations," 134–153.

77. RECG, pp. 74–75.

78. Jay Raina, "Have We Learnt Any Lessons From Plague?" *Hindustan Times*, November 11, 1994. See letter from Saroja Subbaraman, "The Plague Syndrome," *Indian Express*, October 5,

1994. Also, Rajni Kothari, "After the Plague: Skewed Priorities," *Indian Express*, November 5, 1994.

79. Swapan Dasgupta, "A Century of Plague: Rodents and Dinosaurs," *Indian Express*, October 6, 1994; Kothari, "After the Plague."

80. For a discussion on this theme, see D. Chakrabarty, "Of Garbage, Modernity and the Citizens Gaze," in eds. Dipesh Chakrabarty and Homi K. Bhabha, *Habitations of Modernity: Essays in the Wake of Subaltern Studies* (Chicago, IL: University of Chicago University Press, 2002): 65–79.

81. K.B. Sahay, "Surat Mill Men Pouring Into Orissa," *Times of India*, September 28, 1994; K.B. Sahay, "How Strange Blaming It on Surat," *Indian Express*, October 17, 1994; and checks at border posts of states: "Three Confirmed Plague Cases in Karnataka," *Hindustan Times*, October 4, 1994; "One More Suspected Plague Death in Delhi," *Indian Express*, October 2, 1994.

82. Chakrabarty and Bhabha, *Habitations of Modernity*, (Chicago, IL: University of Chicago Press):66–68.

83. C. Patton, *Globalizing AIDS* (Minneapolis, MN: University of Minnesota Press, 2002):39–42.

84. RECG, Preface, interviews with Dr Dileep Mavalankar and Dr Vasudev Raval, members of the Gujarat Plague Committee, April–May 2008, in Ahmedabad and Gandhinagar.

85. M. Pelling, "The Meaning of Contagion: Reproduction, Medicine and Metaphor," in eds. A. Bashford and C. Hooker, *Contagion: Historical and Cultural Studies*, (New York, NY: Routledge, 2001): 15–38.

86. Sahay, "How Strange Blaming It on Surat."

87. Also reflected in other earlier debates on epidemic outbreaks, calling attention to matter of urgent public importance. Reported increase in cases of smallpox, Kala-Azar, gastroenteritis, malaria, viral jaundice and other epidemics in other parts of the country, Indian Parliamentary Debates, Lok Sabha proceedings, debate held at 12:16 hrs, May 2, 1984 (New Delhi: Lok Sabha Secretariat), pp. 236–74; and Sahay, "How Strange Blaming It on Surat."

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