Governing the Body: Public Health and Urban Society in Colonial Bombay City, 1914-1945

Thesis submitted for the degree of

Doctor of Philosophy

at the University of Leicester

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School of History, Politics and International Relations

June 2019

Word Count: 74, 562

Abstract

Mrunmayee Satam- 'Governing the Body: Public Health and Urban Society in Colonial Bombay City, 1914 – 1945'

This thesis aims to study the politics surrounding the management of public health in inter-war Bombay. Most health histories on colonial Bombay stop at the end of the First World War. The inter-war period is crucial for the city, as the city recorded a steep decline in the death rates from the mid-1920s through to the 1940s. The study critically evaluates the contribution of the colonial state, Bombay Municipal Corporation and the civil society in addressing issues related to health and sanitation. The thesis highlights the failure of the colonial state to provide adequate public health infrastructure and argues that this opened up a space for the emergence of alternate forms of urban governmentalities. The civil society and private philanthropy contributed actively to the 'upliftment' of the poorer sections of the society and in the provision of healthcare infrastructure.

While evaluating public health policies, this thesis focuses on the influenza pandemic of 1918, the lack of adequate healthcare infrastructure in the city, problems of poverty and overcrowding in the mill district, and the issue of maternal and infant welfare. This dissertation argues that: first, while the condition of the masses remained dismal, the decline in the overall death rates was largely due to the reduction in the mortality figures for the upper class and upper caste population; second, the inter-war period witnessed a patchwork of various health policies initiated by a number of governing agencies; and third, the caste status of an individual was a crucial determinant in accessing healthcare provisions in the city.

Acknowledgements

Academically, I am indebted to my supervisors, Dr Prashant Kidambi and Dr Richard Butler, for pushing me to critically evaluate and write better. Dr Kidambi, my primary supervisor has been generous with his support through all the highs and lows in the four years. I would like to thank him for helping me conceptualize the broad arguments and framework of my dissertation. Dr Butler has been a valued mentor and took great efforts which have allowed me to write my PhD with considerable ease. He has read several drafts of each chapter and offered detailed feedback.

I am extremely grateful to the University of Leicester for their continuous financial assistance through the four years of my doctoral degree program. The 'International Excellence Award' from 2015 to 2018, the 'Post Graduate Research Awards' in 2016 and 2017, and the tuition fee discount in 2017 have relieved me of financial stress and allowed me to pursue my PhD with great ease. I would also like to thank the Economic History Society, Royal Historical Society, Centre for Social History of Health and Healthcare at University of Strathclyde and Framjee Cawasjee Institute in Mumbai for the financial aid which helped me present my work at the various conferences in India, United Kingdom and United States of America.

The following institutions have facilitated my primary and secondary research: Centre for Urban History at University of Leicester; Centre for South Asian Studies at University of Cambridge; British Library and the Wellcome Trust in London; Social Service League Library, Asiatic Library and Maharashtra State Archives in Mumbai; and Nehru Memorial Museum and Library in New Delhi. I would like to make a special mention of Mrs. Suman Tate at the Bombay Municipal Corporation and Mr. Pawar at the Maharashtra State Archives for helping me locate the sources through the nine months of data collection in Mumbai. It has enabled me to finish my research in a stipulated amount of time.

A sincere thank you to my professors who taught me at the undergraduate and postgraduate level- Dr Fleur D'Souza at St Xavier's College and Dr Manjiri Kamat at the Department of History, University of Mumbai. Pursuing a PhD with little experience in research and academic writing, was a huge risk. However, the continuous encouragement provided by Fleur ma'am and Manjiri ma'am has helped me stay focussed on my goal. In particular, I would like to thank Fleur ma'am for providing me with an opportunity to teach the undergraduate history course at St. Xavier's College, during my research stint in Mumbai. The experience on the job has enriched me and was crucial in developing my love for teaching.

At the School of History, University of Leicester – I would like to thank Dr Toby Lincoln, Dr Bernard Attard and Dr James Moore for examining my Probation Review and Annual Review during the course of my PhD. They prompted deeper thinking and better arguments through the regular interactions. I am also grateful to Dr Rosemary Sweet, Dr Simon Gunn, and Dr Kate Boehme for providing useful advice and tremendous moral support.

A special thank you to my friends in India, UK, USA, Taiwan and Turkey - Babasaheb Kambale, Richard Morris, Aniket Gad, Ankita Narvekar, Ganesh Raghuveer, Rajat Bhosle, Dheeraj P C, Partho Pal, Vivek Deshpande, Chiao-Mei Lin, Sema Serim, Georgina Lockton, Sai Nikam, Sumer Bangera, Kaizeen Jehangir, Linda Dhakul, Rohit Tayade, Sue Bishop, Maitreya Johari, Kellie Moss, Swarda Phadke, and Jenny Stewart. Thank you for providing the words of love and encouragement that I needed to get through the rough patches and assuring me that everything was going to be just fine. In particular, I would like to mention my greatest debt of gratitude to Babasaheb, for his help through the four years of my PhD program. Not only has he attended my phone calls at random hours of the day and helped me build my arguments for the thesis, but has also helped me locate

certain crucial source material available in Mumbai. Accessing documents from the King Edward Memorial Hospital's library was made easier due to the help provided by my dear friend – Rajat Bhosle. Thank you for taking out time from your busy schedule, to help me identify and access the required documents. On a more personal note, thank you Dheeraj for being my home away from home in Leicester. On long walks around the city and over cups of hot chocolate, you gave me both endless laughter and life lessons.

My sincere thanks to Vidya Prabhu and Dr Meherjyoti Sangle for providing me with a platform to share my doctoral experience and expertise with students at Satish Pradhan Dnyanasadhana College and Shreemati Nathibai Damodar Thackersey Women's University respectively. A big thank you to Jenny, Jeremy, Sandhya and Santosh for their warm hospitality during my stay in the United Kingdom and for showing me around the country on numerous trips. I am profoundly grateful to Shashank Deshpande, for going out of the way to help me with my accommodation arrangements in New Delhi. I would also like to thank my doctors in India - Dr Harish Shetty, Dr Shashank Joshi and Dr Shilpa Varma - for not only helping me recover medically, but also constantly encouraging me with their warm words of appreciation.

Finally, I acknowledge the people who mean a lot to me and without whom this PhD would not have been possible - my dearest Aai and Bhai, for showing immense faith in me and giving me complete liberty to choose what I desired. I cannot thank you enough for the selfless love, care, pain and sacrifice you have put in over the years, to shape my life. You have been there to see me laugh, cry, learn and grow. This thesis is dedicated to my grandparents – Ramchandra and Suniti, Shridhar and Jayashri; my parents – Chandrakant and Supriya; and my dear brother - Dr. Kaustubh. They have all been my biggest supporters and have shared my joys and sorrows on this journey. I hope to have made you all proud!

For my parents,

Aai and Bhai

Contents

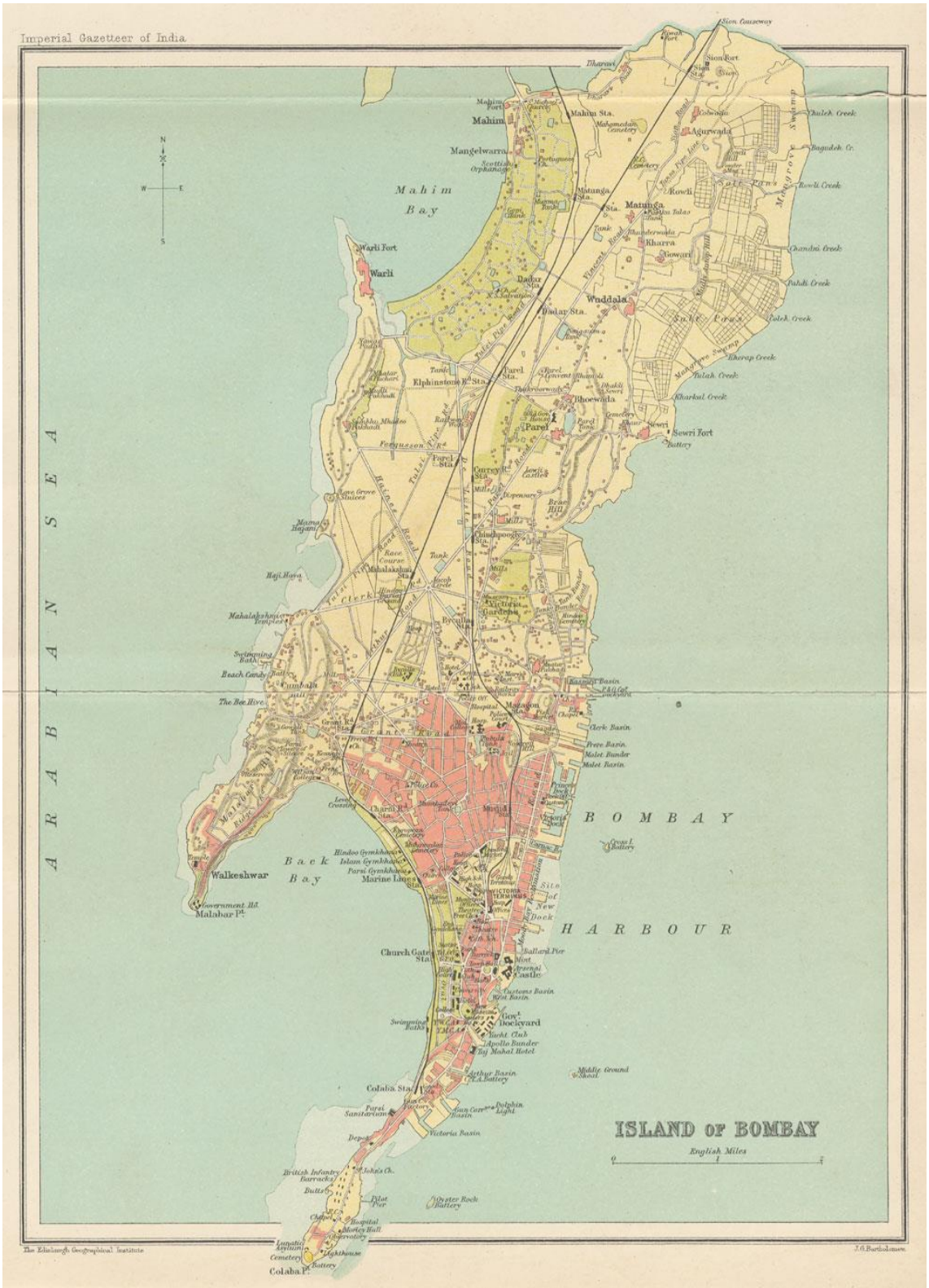
List of figures

List of tables

List of Abbreviations

1. CIT – Bombay City Improvement Trust
2. BDD – Bombay Development Directorate
3. BMC – Bombay Municipal Corporation
4. BPIWS – Bombay Presidency Infant Welfare Society
5. BSA – Bombay Sanitary Association
6. EIC – East India Company
7. GS – Seth Gordhandas Sunderdas Medical College
8. INC – Indian National Congress
9. IRFA – Indian Research Fund Association
10. J. J. Hospital – Jamsetjee Jeejeebhoy Hospital
11. KEM Hospital – King Edward Memorial
12. LWS – Lady Wellingdon Scheme
13. ORF – Observer Research Foundation
14. SSL – Social Service League
15. YMCA – Young Men's Christian Association
16. MSA – Maharashtra State Archives

Figure 1: Map of the Island of Bombay created by J. G. Bartholomew. Source: Imperial gazetteer of India. New edition, published under the authority of His Majesty's Secretary of State for India in Council. Oxford: Clarendon Press, 1907-1909, Vol. 8, inside the back



cover.

Figure 2: Bombay City, c. 1919: Municipal Wards and Sections. Source: Prashant Kidambi, The Making of an Indian Metropolis – Colonial Governance and Public Culture in Bombay, 1890-1920 (Aldershot: Ashgate, 2007), p. xxi.

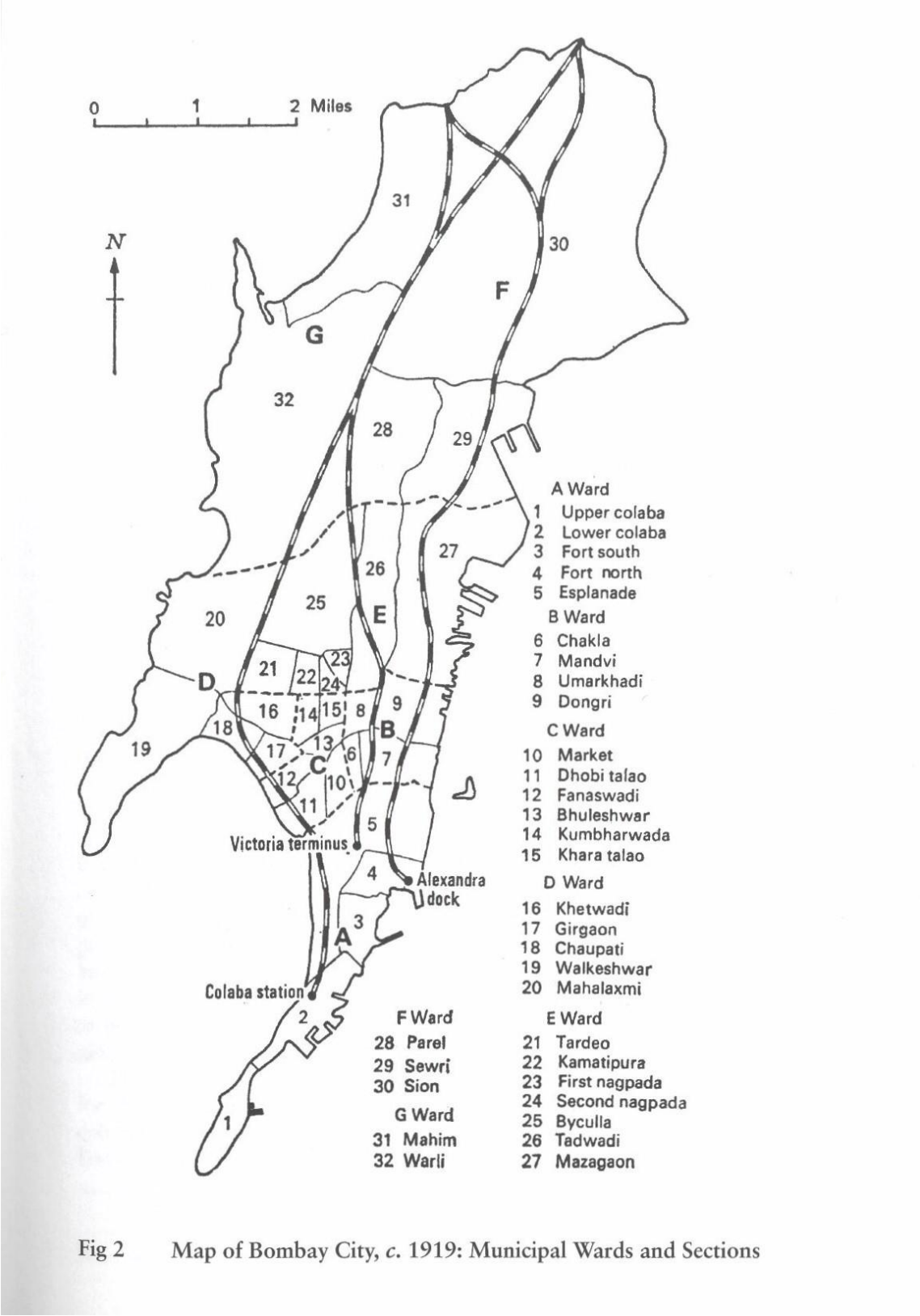


Fig 2 Map of Bombay City, *c.* 1919: Municipal Wards and Sections

INTRODUCTION

The slums of the Urbs Prima in India are really the hells of Bombay. The party was simply horror stricken at the sight of the standing nuisance. All the bylanes and the main lane were full of mud and filthy waters and at the various places there were pools of water permanently breeding germs of Malaria and other diseases. The dark, ill ventilated chawls did not appear to have been white washed for at least a decade …. These conditions are a disgrace to a premier city in India.

- Report of the 'First Sanitation Round' by the Social Service League, 13 August 1922.[1]

The process of rapid industrial urbanization in the nineteenth and the twentieth centuries, highlighted the importance of understanding relationships between the changing urban environment and human health and wellbeing.[2] Since then, civil societies around the world have been galvanized by issues related to public health and sanitation.[3] Colonial Bombay in the age of empire exemplifies many of the consequences of rapid industrialization on urban environments and their attendant consequences for public health. Bombay, the premier city in colonial India was known for being an 'unhealthy space', as much as it was known for its commercial dynamism. Diseases and deaths in Bombay were a consistent feature through the course of history, and the city continues today to grapple with public health challenges. Some of the prominent public health challenges faced by the city over the centuries have been: epidemic diseases, poverty and insanitary conditions, poor maternal and infant health,

[1] 'First Sanitation Round', F Ward, 13 August 1922, Social Service League Pamphlet no. 1, Bombay: Social Service League, pp. 19-20.
[2] Prashant Kidambi, *The Making of an Indian Metropolis, Colonial Governance and Public Culture in Bombay, 1890-1920* (Aldershot: Ashgate Publishing Limited, 2007), p. 221.
[3] Ibid.

a lack of adequate healthcare infrastructure, and overcrowding due to high population density.

The aim of this thesis is not only to analyse the development of public health in inter-war Bombay, but to investigate the politics surrounding the management of public health and its impact on the urban society in Bombay during this time period. By way of an introduction, I set out here the context of this research and, highlight its principal aims and objectives. First, I begin by tracing the history of public health in colonial Bombay from the seventeenth century to the early decades of the twentieth century. Second, a critical evaluation has been made of the existing historiography on health and sanitation in colonial India and more specifically on the city of Bombay – to identify the areas that require investigation in this thesis. Third, I outline and discuss the key problems associated with public health history for Bombay during the inter-war period and put forth my research questions. In the last section, I elaborate on the structure of the thesis and the research methods adopted for this project.

I. HISTORY OF PUBLIC HEALTH IN COLONIAL BOMBAY

There is little information available on the state of health and sanitation in Bombay prior to the acquisition of the islands by the English.[4] Most writing on Bombay's public health identifies it as an 'unhealthy space'. In the late seventeenth and the early eighteenth century, the British believed that the use of rotten fish as manure in the fields was the main cause for the various diseases in Bombay.[5] However, contrary to popular opinion, there are two records available for the 16th and 17th century that, perhaps surprisingly, identify Bombay as an ideal location for a settlement. The first record is of Heitor da Silveira, who in the 16th century used the phrase "Island of Good Life" to describe Bombay.[6] The second record is

[4] S. M. Edwardes, *Gazetteer of Bombay City and Island*, Vol. III (Bombay: Times Press, 1909), p. 161.
[5] Ibid., p.164.
[6] Ibid., p. 161.

Dr John Fryer, a surgeon with the East India Company who in 1673 said that unlike the English in Bombay, the native population and the 'naturalized' Portuguese lived a long life due to their temperate habits - their avoidance of alcohol.[7]

Some of the prominent maladies amongst the members of the East India Company (henceforth EIC) in Bombay during the seventeenth and eighteenth centuries included fluxes, dropsy, scurvy and barbiers.[8] In 1676, two English officials – Philip Gyfford and John Petit – wrote that 'we have buried upwards of 50 men, most new men; they die generally of fluxes which for the most part takes all it seizeth by reason of the bad diet and lodging and ill-government of our people in their sickness, and also they living so remote they cannot be looked after as they ought.'[9] In addition, soon after the EIC's acquisition of Bombay, the islands were affected by a plague epidemic between 1690 and 1708. During this period, "two monsoons were the age of a man" was a common phrase used to describe life expectancy in Bombay.[10] John Ovington, a chaplain with the EIC, described the impact of the unpleasant climatic conditions in Bombay on the settlement as 'no more than a parish graveyard, a charnel house'.[11]

The high mortality rates among the officials of the EIC caused great anxiety to the Court of Directors, who strove to provide temporary relief to their colleagues by provision of medicine and access to surgeons from England.[12] In addition, the British in the first half of the eighteenth century imposed a ban on the use of fish manure for farming purposes

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[7] J Gerson Da Cunha, *The Origin of Bombay* (Bombay: The Education Society's Steam Press, 1900), p. 284.

[8] Ibid.

Fluxes are an abnormal discharge of blood or other matter from or within the body. Dropsy is an old-fashioned or less technical term for oedema. Scurvy is a disease caused by a deficiency of vitamin C, characterized by swollen bleeding gums and the opening of previously healed wounds, which particularly affected poorly nourished sailors until the end of the 18th century. Barbiers is a disease of the nervous system.

[9] Edwardes, *Gazetteer of Bombay City and Island*, Vol. III, p. 162.

[10] Ibid., p. 163.

[11] Fernandes, *City Adrift*, p. 29.

[12] Edwardes, *Gazetteer of Bombay City and Island*, Vol. III, p.164.

(1708), carried out the fortification of Bombay Castle (1715), initiated a number of land reclamation projects, and provided the British troops and government officials with access to better medical relief infrastructure. The British officials believed that these steps had resulted in the change of Bombay's status from an 'unhealthy space' to 'a tolerably healthy station' by the mid-18th century. Edward Ives, who visited Bombay in mid-18th century records in his work *Voyage from England to India* (first published in 1773), that "The island of Bombay has of late been rendered much more healthy that it was formerly by a wall which is now built to prevent the encroachment of the sea, where is formed a salt marsh, and by an order that none of the natives should manure their cocoa-nut trees with putrid fish".[13]

Though Bombay had become 'tolerably healthy'[14] by the standards of the EIC, the sanitary conditions in Bombay became a matter of great concern in the second half of the 18th century. This was largely due to the increasing population in the town and lack of adequate sanitary infrastructure. In 1757, following an epidemic among the labourers working on the port's fortifications, a special officer was appointed to supervise the cleansing of streets.[15] The same year also saw the Government of Bombay set up a provision for funds towards the establishment of sanitary infrastructure by imposing a tax on the residents of Bombay.[16] In the nineteenth century the city continued to record high mortality rates. The colonial authorities blamed it on the large-scale migration of 'famishing and moribund people'[17] from famine-struck Konkan and the presence of cholera in the city. Cholera – the

[13] Ibid., p. 165, quoting Edward Ives, A voyage from England to India (London: Dilly, 1773), p. 448.
[14] Ibid., p. 165.
[15] Ibid., p. 166.
[16] Ibid.
[17] Ibid.

'classic epidemic disease of the nineteenth century', had a significant impact on the mortality rates in Bombay until the late nineteenth century.[18]

The second half of the nineteenth century witnessed significant changes in the governance of the city. On 1 July 1865, the Bombay Municipal Corporation was formed and the responsibility of the urban governance now rested on the shoulders of the Municipal Commissioner.[19] Over the next couple of years, a number of separate departments were created to aid smooth functioning of the Municipality and the Bombay Municipal Corporation Act of 1888 stated that the 'Executive Health Officer was to be the Consulting Officer of Health under Bombay Act VI of 1867'.[20] For a city such as Bombay, there was a lengthy delay in establishing a health department for the local population. Earlier efforts that were made to provide medical relief in the city were exclusively for the military requirements and the city's European population.[21] The medical needs of the native population were largely ignored by the colonial state.

In the late nineteenth century, the delay in the establishment of a health department, coupled with increasing migration and overcrowding in the city resulted in higher mortality rates. However, the government agencies were of the opinion that the high mortality rates were largely due to 'special and temporary' circumstances.[22] They further went on to applaud the 'achievements of the Municipality' in addressing issues related to health and sanitation in the city.[23] In such a scenario, it was the bubonic plague of 1896 that forced the governing bodies to address the issues of high mortality rates and insanitary conditions, and also reconsider the public health and infrastructure policies in the city. The plague epidemic

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[18] C. E. Rosenberg, *The Cholera Years: The United States in 1832, 1849 and 1866* (Chicago: University of Chicago Press, 1962), p. 1.
[19] The Bombay Municipal Corporation Act, 1888 (Act III of 1888).
[20] Ibid.
[21] Roger Jeffrey, *The Politics of Health in India* (Berkeley: University of California Press, 1988), p. 98.
[22] Edwardes, *The Gazetteer of Bombay City and Island*, Vol. III, p. 168.
[23] Ibid.

brought the city of Bombay to a complete standstill, as it affected all sections of society. Trade and commerce were severely affected and reverse migration to the countryside had a major impact on the population of Bombay.

II. PROBLEMS AND PERSPECTIVES

For long, historians and scholars working on colonial India overlooked the history of health and medicine. However, in the past couple of decades, the field has received significant attention. This is reflected in the rising number of works on public health in colonial India. David Arnold, Biswamoy Pati, Mark Harrison, Sanjoy Bhattacharya, and Mridula Ramanna are some of the leading contributors to the study of public health and medicine in colonial India. In recent years, younger scholars such as Saurabh Mishra, Madhuri Sharma, Amna Khalid, Sanchari Dutta, Priyanka Srivastava, and Sarah Pinto enriched the historiography through their writings. This has resulted in the emergence of a number of new approaches and perspectives in the field. My work engages with these works and their perspectives constitute a point of departure for this study.

A few major themes dominate the secondary literature on public health and medicine in colonial India. The triangle of disease, health, and medicine has been studied from many perspectives. There have been important writings about the medical imperatives of imperialism,[24] the marginalisation of the indigenous medical systems,[25] questions of gender and medicine,[26] medical attitudes, Indian responses and resistance,[27] and the politics of

[24] Mark Harrison, *Public Health in British India: Anglo- Indian Preventive Medicine, 1859- 1914* (New Delhi: Cambridge University Press, 1994).
[25] Deepak Kumar, 'Unequal Contenders and Uneven Ground: Medical Encounters in British India, 1820-1920', in A. Cunnigham and B. Andrews (eds), *Western Medicine as Contested Knowledge* (Manchester: Manchester University Press, 1997), pp. 172-90.
[26] Geraldine Forbes, *Women in Colonial India, Essays on Politics, Medicine and Historiography* (New Delhi: Chronicle Books, 2005).
[27] Mridula Ramanna, *Western Medicine and Public Health in Colonial Bombay, 1845- 1895* (New Delhi: Orient Longman Private Limited, 2002).

medical provision.[28] There also have been focussed studies on specific contagious diseases such as smallpox, cholera, plague, venereal diseases, malaria, leprosy, and so on. While looking at the epidemic diseases, scholars of colonial medical history have tried to unravel the social and political dynamics of colonial practices and the medical profession. Some of the more recent trends that have received attention from young scholars are labour and public health, politics of health surrounding religious events, and mental health histories. Therefore, in the following section, the survey of secondary literature on colonial India in general and the city of Bombay in specific, is more indicative in nature.

i) Colonialism and Western Medicine

Western medicine was an important component of the grand imperial project, and, in the words of Arnold, 'it has a long and complex history in India'.[29] His monograph, *Colonizing the Body* (1993), was one of the first attempts to understand the impact of western medicine on the native population in India. In his work, Arnold takes the body as a site of contestation between rulers and the ruled in colonial India. This contestation is brought out through his detailed studies of Indian responses to the catastrophic epidemics of smallpox, cholera and plague, and British attempts to contain and control them. The idea of the body – physical and political – as a site of active contest is the central theme of his book. He focuses on the colonized body to emphasize on the 'corporality of colonialism in India'. This is in contrast to historians such as Ashis Nandy, whose primary emphasis has, as one reviewer has commented, 'been upon colonialism as a psychological state'.[30]

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[28] Biswamoy Pati and Mark Harrison (eds), *Health, Medicine and Empire: Perspectives on Colonial India* (Hyderabad: Orient Longman, 2001).

[29] David Arnold, *Colonizing the Body, State Medicine and Epidemic Disease in Nineteenth-Century India* (London: University of California Press, 1993), pp. 290-92.

[30] Zaheer Baber (review), 'David Arnold, Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth Century India (Berkeley: University of California Press, 1993)', *Journal of Asian Studies*, 53:4 (November 1994), pp. 1286-87 at p. 1286.

Arnold argues that the introduction of Western medicine by the colonial state had little impact on the native population until the early twentieth century; it became increasingly accepted only on account of the efforts taken by Indian elites.[31] Arnold uses Michel Foucault's writings on biopower and governmentality to suggest that the colonial state used the body of the native population as a means to exert control, authority, and legitimize colonial rule.[32] It is important to highlight that while he draws on colonial records, Arnold also pays attention to the views of the Indian populations, as expressed in personal memoirs and vernacular language newspapers. Unlike previous scholarship, which had tended to ignore the opinion and reaction of the colonized masses, Arnold's work accorded close attention to Indian experience and agency.

For the city of Bombay, Ramanna's work gives a valuable regional illustration of Arnold's interpretation in *Colonizing the Body*. But she also challenges his conclusions in a number of places. Her book, *Western Medicine and Public Health in Colonial Bombay, 1945-1895* (2002), seeks to 'explore the place of Western Medicine in nineteenth century Bombay' by looking at a number of themes, such as medical practitioners, public health infrastructure, major diseases, policies associated with sanitation, medical activism, and the health provisions for women. Ramanna's research indicates that the Indian medical professionals were vital intermediaries in the promotion of Western medicine,[33] and that the colonial state took little efforts to understand the society and culture in Bombay before implementing various health policies and programmes for the city.[34] By navigating through a wide range of vernacular newspapers, Ramanna demonstrates how the Indian response to Western medicine was mixed and ambiguous. Generally, it is a major strength of her work that it is sensitive to the varied and complex nature of the response of Western medicine in Indian

[31] Arnold, *Colonizing the Body*, p. 294.
[32] Ibid., p. 7.
[33] Ramanna, *Western Medicine and Public Health in Colonial Bombay*, pp. 8-47.
[34] Ibid., pp. 83-142.

society. Importantly, as the first major writing on health and sanitation in colonial Bombay, Ramanna's book is loaded with helpful contextual information. A noteable feature of this work is the exhaustive use of native language sources that help in providing a complete picture.

ii) Public Health – social and political significance

Moving away from the agenda of the imperial government, another key strand in the historiography evaluates the significance of public health in India. Mark Harrison, in his book, *Public Health in India* (2001), argues that the colonial authorities gave less importance to public health than to matters of defence or civil administration because, public health and medicine were obviously costlier 'tools' for gaining legitimacy – with possibly no immediate results.[35] The colonial state was keen that the native population would invest in the development of health infrastructure. While appreciating the decentralisation of power on the part of the colonial state, Harrison is critical of the role played by the Indian representatives at the municipal level.[36] He argues that local representatives often tried to obstruct the health and sanitary measures undertaken by the colonial government.

However, the work done by Preeti Chopra[37] and Ramanna[38] on Bombay's history highlights that the contribution of the native population in the provision of health infrastructure is indisputable. Specifically, Ramanna's chapter on 'Promotion of Hospitals and Dispensaries' is closely connected with the research aims of my thesis. Here Ramanna makes it clear that the colonial state was reluctant to build public health infrastructure for the local population.[39] In the late eighteenth and into the nineteenth centuries, most of their

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[35] Harrison, *Public Health in British India*, pp. 228-30.
[36] Ibid., p. 232.
[37] Preeti Chopra, *A Joint Enterprise: Indian Elites and the Making of British Bombay* (London: University of Minnesota Press, 2011), pp. 117-58.
[38] Ramanna, *Western Medicine and Public Health in Colonial Bombay*, pp. 48-82.
[39] Ibid.

efforts were concentrated on the provision of medical relief for the European and Anglo-Indian population in the city. Though a number of hospitals had been constructed during the second half of the nineteenth century, for the promotion of Western medicine, they were largely due to the generous donations made by the private philanthropists in Bombay.[40]

In addition to the private philanthropists who made huge donations for building and maintenance of public health infrastructure, voluntary organisations in the urban context worked actively to promote the tenets of public health in Bombay. Prashant Kidambi, in his book, *The Making of an Indian Metropolis, Colonial Governance and Public Culture in Bombay, 1890-1920,* argues that the emergence of civil society in Bombay and its active participation in matters of public health and sanitation was largely a product of the policies adopted by the colonial state. Kidambi elaborates how in the years that followed the plague epidemic of 1896, the colonial state created a perception amongst the local elites and the professional middle class that the poor localities (often occupies by the lower-castes) in Bombay, were the 'primary cause of the epidemic'.[41] This resulted in the educated elites actively engaging in different forms of social activism aimed at 'uplifting' the lower ranks of the society. The prominent social service organisations such as the Bombay Sanitary Association, Social Service League, and others which focussed on public health and sanitation developed from the perception created by the colonial state.

[40] Ibid.
[41] Kidambi, *The Making of an Indian Metropolis*, p. 71.

iii) Death and Diseases

One of the prominent themes in the histories of public health and sanitation is that of diseases. A wide number of scholars have investigated into episodes of smallpox, cholera, and plague in different parts of India during the colonial period.[42] However, it is only in the recent years that attention has been diverted to diseases such as *kala-azar,*[43] leprosy,[44] influenza,[45] and malaria.[46] For instance, Sanjiv Kakar's work on 'Medical Developments and Patient Unrest in the Leprosy Asylum, 1860-1940' not only throws light on the colonial policies associated with leprosy, but also highlights the need to investigate the caste dimension of colonial health and medicine.[47] While focussing on the class dimension, most health histories in South Asia gloss over the question of caste, which was central to an individual's identity in the subcontinent. The theme of class and caste had been explored in greater detail further in the chapter.

From the 1850s onwards, various international bodies began to influence the policies regarding health and sanitation in the colonial world, particularly in connection with diseases

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42 Arnold, *Colonizing the Body*, pp. 116-239; for cholera see: Harrison, *Public Health in British India*, pp. 99-116; for plague related policies: Sanchari Dutta, 'Plague, quarantine and empire: British-Indian sanitary strategies in Central Asia, 1897-1907', in Biswamoy Pati and Mark Harrison (eds), *The Social History of Health and Medicine in Colonial India*, pp. 75-92; and Manjiri Kamat, 'The Palkhi as plague carrier: The Pandharpur Fair and the sanitary fixation of the colonial State; British India, 1908-16', in Biswamoy Pati and Mark Harrison (eds), *Health, Medicine and Empire: Perspectives on Colonial India* (Hyderabad: Orient Longman, 2001), pp. 299-316.

43 Achintya Kumar Dutta, 'Medical research and control of disease: Kala-azar in British India', in Pati and Harrison (eds), *The Social History of Health and Medicine in Colonial India*, pp. 93-112.
Kala-azar: Black fever.

44 Biswamoy Pati and Chandi Nanda, 'The Leprosy patient and society: Colonial Orissa, 1870s-1940s', in Pati and Harrison (eds), *The Social History of Health and Medicine in Colonial India*, pp. 113-128.

45 I. D. Mills, 'The 1918-1919 Influenza Pandemic: The Indian Experience', *Indian Economic and Social History Review* 23:1 (1986), pp. 1-40. See also Ramanna, 'Coping with the Influenza Pandemic', pp. 86-98.

46 Sheldon Watts, 'British development policies and malaria in India 1897-c.1929', *Past and Present* 165 (1999), pp.141-81; and V. Kamat, 'Resurgence of malaria in Bombay (Mumbai) in the 1990s: a historical perspective', *Parassitologia* 42:1 (June 2000), pp. 135-48.

47 Sanjiv Kakar, 'Medical Developments and Patient Unrest in the Leprosy Asylum, 1860-1940', in Harrison and Pati (eds), *Health, Medicine and Empire*, pp. 188-216.

such as cholera, plague and influenza. Chapters by Amna Khalid,[48] Saurabh Mishra,[49] and Sanchari Dutta,[50] in Biswamoy Pati and Mark Harrison's edited collection *The Social History of Health and Medicine in Colonial India,* 'demonstrate the importance of placing the historiography of public health in British India within a wider frame of analysis that pays close attention to an emerging, albeit unstable, internationalism in the field of health.'[51] The chapter by Saurabh Mishra highlights a neglected aspect of investigation in the field – the impact of the pressure exerted by international agencies on the public health policies initiated by the colonial state in India.[52] While evaluating the Constantinople Sanitary Conference of 1866, Mishra identifies how the pressures exerted by the body resulted in the implementation of the various measures identified by the body.[53] Though Britain played an important role in establishment and functioning of these international bodies, the Government of India had a different agenda than the home government, and therefore displayed reluctance in implementing the measures.

Importantly, from our perspective, the Constantinople Sanitary Conference resulted in the formation of the Bombay Port Health Trust, which governed the bodies in the jurisdiction of the port authorities.[54] The Health Officer for the Bombay Port Trust played a crucial role during the plague epidemic of 1896 and the influenza pandemic of 1918. During the inter-war period, establishment of the International Labour Organisation in 1919, had a significant impact on the health and sanitation policies associated with the industrial working-

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[48] Amna Khalid, 'Subordinate negotiations: Indigenous staff, the colonial state and public health', in Biswamoy Patil and Mark Harrison (eds), *The Social History of Health and Medicine in Colonial India* (Oxon: Routledge, 2009), pp. 45-73.
[49] Saurabh Mishra, 'Beyond the bounds of time? The Haj pilgrimage from the Indian subcontinent, 1865-1920', pp. 31-44.
[50] Sanchari Dutta, 'Plague, quarantine and empire: British-Indian sanitary strategies in Central Asia, 1897-1907', pp. 74-92.
[51] Pati and Harrison (eds), *The Social History of Health and Medicine*, p. 3. See also Valeska Huber, 'The Unification of the Globe by Disease? The International Sanitary Conferences on Cholera, 1851-1894', *The Historical Journal* 49:2 (June 2006), pp. 453-76.
[52] Mishra, 'Beyond the bounds of time?', pp. 31-45.
[53] Ibid, pp. 32-37.
[54] Pati and Harrison (eds), *The Social History of Health and Medicine*, p. 2.

class in colonial urban cities. In Bombay, the Maternity Benefits Act became law in 1925 largely on account of the pressure exerted by various international agencies. Furthermore, for various problems facing the health and sanitation of the city, the local elites looked to the West for possible solutions.

During the influenza pandemic of 1918, India, despite recording one of the highest mortality rates across the globe, has received little attention from the historians. Ramanna's article is the only published work on Bombay's experience of the influenza pandemic. She relies heavily on the report of the Sanitary Commissioner for Bombay Presidency and Executive Health Officer for the city of Bombay, to construct the Bombay 'experience' of the pandemic. While critical of the role played by the colonial state in tackling the epidemic, Ramanna fails to recognize the evident caste, class, and community biases that exist in the medical relief provision by the community based and voluntary organisations in the city. Her work displays a great amount of agreement with the nature of medical relief undertaken by the Bombay Municipality and other social service organisations in the city. Ramanna's article is an important point of departure for this dissertation.

iv) Class and Caste

Social histories of health that focus on colonial Bombay have been quite successful in identifying the direct connection between class-based spatial segregation and its impact on the health and well-being of the citizens. Ira Klein's article, 'Urban Development and Death: Bombay City, 1870–1914', is an important intervention in the historiography of colonial public health. The article is significant as it is also one of the earliest attempts to provide a systematic explanation of the mortality patterns in the late nineteenth and early decades of the twentieth century. Klein argues that the modernization and development of colonial Bombay did not improve the health of the local population, but instead 'induced a

culminating health ordeal which threatened the city'.[55] Focusing on the class dimension, the work highlights the impact of the social and economic divide on the health and wellbeing of the poor in the city. The element of class is also crucial to the analysis offered by Ramasubban and Crook in their chapter, 'Spatial Patterns of Health and Mortality'.[56] They build their argument on the economic divide evident in the city's spatial distribution and explore the dynamics of mortality patterns in the various wards of Bombay from the late nineteenth to the late twentieth century. Ramasubban and Crook find interconnections between the increasing population, density in the various wards of the city, living standards and mortality rates.

A majority of the population in Bombay from the second half of the nineteenth century worked as labour force in industries and factories across the city. Despite the contribution of the industrial working-class being crucial to Bombay's growth, the existing scholarship on colonial textile labour in Bombay rarely went far beyond the political and economic domain – focussing for the most part on the trade unions and the relationship of the industry to the city's economic emergence. In such a scenario, Priyanka Srivastava's book*, The Wellbeing of the Labor Force in Bombay – Discourses and Practices,* published in 2018, offers illuminating new perspectives on the politics surrounding health and wellbeing of the mill hands in the city. The author focuses on the various housing and development schemes for the labour force, emergence of alternate forms of urban governmentalities to address issues related to workers' health and sanitation, and the discourses and practices associated with maternal and infant welfare amongst the industrial working class, to identify some of the

[55] Ira Klein, 'Urban Development and Death: Bombay City, 1870-1914', *Modern Asian Studies,* 20:4 (1986), p. 727.
[56] Radhika Ramasubban and Nigel Crook, 'Spatial Patterns of Health and Mortality', in Sujata Patel and Alice Thorner (eds), *Bombay Metaphor of Modern India* (New Delhi: Oxford University Press), pp. 143-169.

major influences that shaped the politics surrounding labour health and welfare in Bombay.[57] Srivastava argues that the colonial state developed the concept of a 'culture of poverty', which allowed them to conveniently blame the social and cultural attributes of the native population, as the most important reason for high mortality rates in the city. The colonial state refused to accept responsibility for the lack of adequate public healthcare infrastructure in the city. In a chapter on social service organisation, she argues that the industrialists worked in close cooperation with the voluntary agencies in the city to regulate the lives of the industrial labour class, so that they would refrain from participating in the strike against the mill owners.[58]

Medicine has also been viewed as an instrument of 'social control' in the colonies, providing means of 'knowing' the indigenous population, and rationales for social segregation.[59] In the nineteenth century, the colonizers who 'invested their energy in understanding and enumerating Indian society, fortified the caste hierarchy'.[60] The work of Sandip Hazareesingh,[61] and Juned Shaikh,[62] further expands our understanding of how the caste status was central to the identity of an individual in colonial Bombay. Hazareesingh has pointed out that the project of 'colonial modernism' used the social hierarchies to carve out elite and poor localities in the city. The elite localities were healthier, while the poor localities suffered from lack of civic amenities. Juned Shaikh in his paper, 'Imaging Caste: Photography, the Housing Question and the Making of Sociology in Colonial Bombay, 1900-1939', asserts that 'caste is an important feature of the Indian social hierarchy' and played a

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57 Priyanka Srivastava, *The Wellbeing of the Labor Force in Bombay – Discourses and Practices* (London: Palgrave Macmillan, 2018).
58 Ibid., pp. 136-37.
59 Harrison, *Public Health in British India*, p. 3.
60 Juned Shaikh, 'Imaging Caste: Photography, the Housing Question and the Making of Sociology in Colonial Bombay, 1900-1939', *South Asia: Journal of South Asian Studies,* 37:3 (2014), pp. 491-514 at p. 491.
61 Sandip Hazareesingh, *The Colonial City and the Challenge of Modernity: Urban Hegemonies and Civic Contestations in Bombay City 1900-1925* (Hyderabad: Orient Longman, 2007).
62 Shaikh, 'Imaging Caste', pp. 491-514.

crucial role in determining the health and well-being of an individual in the city. His views echo the arguments of Carey Watt,[63] and Prashant Kidambi,[64] – that the social service organisations such as the Social Service League and the Servants of India Society played a crucial role in the shaping the discourses and practices surrounding health and sanitation in the city. Shaikh further argues that for some social reformers in the city, 'the question of sanitation and hygiene was inextricably tied to the Dalit question'.[65]

It is important to highlight that while caste as a determinant has been used by scholars to analyse spatial segregation and access to civic amenities in colonial Bombay, there are no studies that interrogate the caste question from the point of view of – first, mortality; second, access to medical relief and healthcare infrastructure; third, representation in governance and policy making process associated with health and sanitation; and finally, caste and community biases within the field of philanthropy and social service.

v) Gender and Health

The relationship between gender and health was a major theme in colonial politics. However, until the late twentieth century, this theme was ignored by scholars working on colonial India.[66] Geraldine Forbes's essay, 'Managing midwifery in India' is one of the earliest attempts to understand Indian women as objects of hegemonic strategies, who stood at the intersection of colonial and indigenous notions associated with maternal and infant health. Midwifery was one important field where ideological hegemony played out in colonial India.

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63 Watt, *Serving the Nation*, p. 109.
64 Kidambi, *The Making of an Indian Metropolis*, p. 215.
65 Shaikh, 'Imaging Caste', p. 495.
66 Some major contributions in the field include: P. Jeffrey, R. Jeffrey and A. Lyon, *Labour Pains and Labour Power: Women and Childbearing in India* (London: Zed Books, 1989). Also, Dagmar Engels, 'The Politics of Childbirth: British and Bengali Women in Contest, 1890-1930' in Peter Robb (ed.), *Society and Ideology: Essays in South Asian History* (Delhi: Oxford University Press, 1993), pp. 222-46; Geraldine Forbes, 'Managing Midwifery in India', in Dagmar Engels and Shula Marks (eds), *Contesting Colonial Hegemony: State and Society in Africa and India* (London: British Academy Press, 1994), pp. 152-72; and Supriya Guha, 'The Unwanted Pregnancy in Colonial Bengal', *Indian Economic and Social History Review,* 33:4 (1996), pp. 403-35.

Forbes argues that the *'dais'*[67] were held responsible for the high infant mortality rates by both middle-class Indian women and female European doctors.[68] The training of midwives emerged as an important trend in late nineteenth- and early twentieth-century colonial India. The author points out that 'by the 1930s, abolishing the *dai* and the system she stood for and replacing her with a midwife trained in the techniques of birthing used in Europe became a stated goal of the all-India women's organisation'.[69] Forbes's critical insights on the issue of midwifery is crucial to evaluate the nature of programmes undertaken in the field of maternal and infant health during the inter-war period. Considering the infant mortality rates registered during the early twentieth century were amongst the highest in the world, 'the answer seemed to be at hand'.[70] Instead of tackling issues associated with poverty and insanitary conditions, the *dais* were identified as the problem.[71]

A substantial work has been undertaken by Ramanna on gender and health in colonial Bombay. Her work focuses on medical infrastructure for women in general and also female medical practitioners and issues of maternal and infant health in Bombay.[72] The author argues that the women were of little significance to the colonial state and despite of the high demand for female doctors amongst the native population, the imperial authorities did not encourage women medical practitioners in the field. Furthermore, she points out that racial discrimination was also evident in the recruitment process for hospitals and dispensaries that were built exclusively for women, female European doctors occupied higher positions, and the local medical professionals were employed at lower positions.[73]

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[67] *Dai*: midwife/ wet nurse.
[68] Forbes, 'Managing Midwifery in India', p. 167.
[69] Ibid.
[70] Ibid., p. 171.
[71] Ibid.
[72] Ramanna, *Health Care in Bombay Presidency*, pp. 110-56.
[73] Ramanna, *Western Medicine and Public Health in Colonial Bombay*, pp. 182-207.

Women and maternal health began to receive significant attention from colonial state officials and industrialists in Bombay in the late nineteenth and early twentieth century. This was a drastic change, considering the wide scale ignorance for women's health in the nineteenth century. In the twentieth century, a number of initiatives were drawn out for maternal and infant health, not only in Bombay city but also in other industrial centres across the country. There was a clear economic agenda behind the implementation of welfare measures for women and infants – the need to produce a healthier labour force and pressure exerted by the international agencies to improve the working and living conditions of the industrial labour force. Ramanna does not engage with the work of scholars such as Samita Sen, to draw out gender and class arguments for colonial Bombay.[74] The author's preoccupation with the primary material leads her to neglect the wider socio-economic context within which the politics of public health management thrived in the city. At numerous instances, the author also seems to be approving of the colonial state.

In conclusion, works on public health, medicine and sanitation in colonial India have opened up the discussion on reinterpretation of modern South Asian history and the significance of public health as a crucial element of Britain's colonial rule in India. Furthermore, this literature review allows us to draw three important conclusions. First, the work done by most historians is limited to the long nineteenth and the early decades of the twentieth century. Scholars in the field have not examined the interwar period. Second, the study of public health and sanitation in Bombay has clearly ignored the urban dimension, looking at the city as the repository of health resources. Third, while some scholars have critically examined public health in Bombay from a class perspective, the importance of the caste in determining access to healthcare provisions, does not find any space in the existing

[74] Samita Sen, Gender and Class: Women in Indian Industry, 1890–1990, *Modern Asian Studies*, 42:1 (2008), pp. 75-116.

historiography. While analysing the management of public health in interwar Bombay, it is this vacuum in the current available historiography that I address in this dissertation.

III. RESEARCH QUESTIONS

The historiography outlined earlier highlights that public health and sanitation in colonial India was one of the 'key idioms' of colonial urbanism, as it 'aimed to regulate the lives of urban populations within changing cityscapes'.[75] Bombay expanded at a rapid pace during the interwar period. The population almost doubled in the period from 1911 to 1951 and the city began to grow in size, as it expanded northwards. A rise in population and industrial development in the first half of the twentieth century increased the public health challenges that the city faced. Therefore, in my dissertation, I seek to investigate the state of public health in Bombay in the period between 1911 and 1945 and to identify the major health and sanitation challenges in the city.

In late nineteenth- and twentieth-century colonial South Asian cities, as Beverley argues, the city's emergence as a 'space of social control' was parallel to the emergence of the city as a 'space of autonomy'.[76] This resulted in the emergence of municipalities, and the local elites began to dominate urban governance. In addition, the interwar period witnessed profound changes in the politics of urban governance with the Government of India Acts of 1919 and 1939. The concept of dyarchy was introduced in 1919, which resulted in the health portfolio being transferred to the local self-governments.[77] Therefore, it becomes imperative to critically evaluate how local elites looked at the problems of public health and sanitation. How did the municipal representatives deal with 'unhealthy spaces and groups' in

[75] Eric Beverley, 'Colonial urbanism and South Asian cities', *Social History*, 36:4 (2011), pp. 482-97, at p. 485.
[76] Ibid., p. 490.
[77] Doughlas Haynes and Nikhil Rao, 'Beyond the Colonial City: Re- Evaluating the Urban History of India, ca. 1920- 1970', *South Asia: The Journal of South Asian Studies*, 36:3 (2013), pp. 317-335, at p. 322.

Bombay city? What was the nature of health programmes implemented by the Bombay Municipal Corporation during the interwar period? To what extent was the municipal politics surrounding public health a reflection of the social divisions' existent in Bombay?

Despite the political changes introduced, the colonial state continued to interfere in the management of public health in Bombay city. As Doughlas Haynes and Nikhil Rao have argued, 'The colonial legislation often did not clearly define the elected municipal representative's jurisdiction over, or oversight of, the planning process - and this had important implications'.[78] In such a scenario, it is crucial to understand the extent to which the colonial state interfered in the provision of public health. What was the nature and the impact of the colonial interference in matters of public health and sanitation? Was the allocation of funds on the part of the government, adequate to meet the growing needs of the colonial city?

The early decades of the twentieth century also saw the emergence of voluntary organisations in the city – the Bombay Sanitary Association, the Social Service League, the Young Men's Christian Association, the Anti-Tuberculosis League, and others. These voluntary organisations played a crucial role in addressing issues related to public health and sanitation. They not only worked independently on various forefronts, but also actively collaborated with the Bombay Municipal Corporation. What was the nature of work undertaken by the social service organisations and what was their agenda? How did they contribute to the improvement of public health and sanitation in the city? It is also important to examine to what extent was the class, caste, and community bias reflected in the outreach of these voluntary organisations. While studying the work done by the social service organisations in the interwar period, it becomes evident that the ongoing Indian national movement and in particular the views of M. K. Gandhi and Gopalkrishna Gokhale had a

[78] Ibid.

major influence on the nature of work undertaken to 'uplift the poor'.[79] In my thesis, I go further and look at the views of Dr B. R. Ambedkar[80] on social upliftment vis-à-vis Gandhi and Gokhale to provide a more critical analysis of the issue.

Another important theme that emerges for the interwar period is the focus on maternal and infant welfare. This is because high maternal and infant mortality figures were recorded for the late nineteenth- and early-twentieth century Bombay. Between 1901 and 1905, the Bombay Municipal Corporation recorded an average annual infant mortality of 530 per 1,000 births.[81] In the early decades of the twentieth century, the colonial state, the Bombay Municipality, Bombay's industrialists, private philanthropists and voluntary organisations implemented a range of programs to improve maternal and infant health in the city. However, maternal and infant health in Bombay requires critical examination as historians of health working on Bombay have rarely look beyond the 'culture of poverty'- the idea sown by the colonial state. Some important questions that emerge are: why did maternal and infant health attracted attention of the governing bodies and the industrialists in the city? What was the nature and agenda behind the various programs implemented to improve the conditions of expectant mothers and infants? How did the local population react to the medical relief provision? And, what was the impact of these policies on the maternal and infant mortality rates towards the end of the colonial rule?

IV. STRUCTURE OF THE THESIS

An attempt has been made to answer the above mentioned question in the five chapters of this thesis. The study begins by looking at the broad trends in health and mortality during the interwar period. Considering the high mortality rates recorded in late nineteenth and the

[79] Kidambi, *The Making of an Indian Metropolis*, pp. 208-10.
[80] Dr Ambedkar - Economist, educationist and the chief architect of the Indian Constitution, Ambedkar fought all his life to remove discrimination, degradation and deprivation from the society. He inspired and initiated the Dalit movement in India.
[81] Srivastava, *The Well-Being of the Labor Force in Bombay*, p. 158.

early twentieth century Bombay, I investigate the key determinants that resulted in a steep decline of mortality rates towards the mid twentieth century. Thus, Chapter One is an extension of the work undertaken by Ira Klein for the years between 1870 and 1914. By adopting a survey approach, the chapter looks at the politics surrounding urban governance in Bombay, major public health challenges such as malaria and tuberculosis, the intersectionality between class and caste, and the emergence of development ethos in early twentieth-century colonial Bombay. Such an analysis enables the reader to get an overview for the interwar period and identifies major themes, which are then covered as individual chapters in this thesis.

Chapter Two focuses on the major influenza pandemic of 1918, which ravaged the city for nearly two years. The disease flared up in June 1918 and caught the Executive Health Officer by surprise, much like the plague epidemic of 1896. Deaths recorded in Bombay during the influenza epidemic were among the highest in the world. Remarkably, the epidemic has received little attention from scholars. But this study argues that influenza marks a turning point in the formulation of health policies in Bombay. In the chapter, I draw connections between mortality rates and provision of medical relief infrastructure with a particular focus on the lower-caste population. I suggest that the influenza pandemic of 1918 lay bare the class and caste biases that existed amongst the civil society in Bombay.

The third chapter attempts to trace the development of public health infrastructure in Bombay during the interwar period. I argue that much before the concept of dyarchy was implemented with the Government of India Act (1919), the colonial state had transferred the responsibility for provision of public health infrastructure to the Bombay Municipal Corporation in 1907. Considering that the management of public health in interwar Bombay was under the jurisdiction of the Municipality, this chapter analyses the extent to which public health policy could be termed 'colonial'. While there are a number of articles focussing

on the chronology of hospital building activity, there is no analysis of the politics surrounding development of public health infrastructure in the city. The chapter engages with the nature of policies adopted by the governing agencies to develop health infrastructure and the contribution of the private philanthropists and general population in the process.

By the early twentieth-century, industrial labour constituted a majority of the city's population. Chapter Four focuses on the complex ways in which provision of medical relief to the mill workers was dealt with by the colonial state, the Bombay Municipal Corporation and the industrialists. I critically evaluate the role of the various voluntary organisations in the city like the Social Service League, the Bombay Sanitary Association and the Young Men's Christian Association, in providing medical relief to the industrial working class. I challenge the popular conception that the need to regulate the industrial working class, gave rise to the use of social service as a political tool to control and regulate the lives of the mill hands in the city. My work highlights that the relationship between cause and outcome was more complicated. This chapter also throws light on the caste bias evident in the various programmes implemented by the voluntary organisation.

The first half of the twentieth century saw growing concerns about high maternal and infant mortality rates in the colonial city. This resulted in greater focus on dissemination and popularising health education among women through different agencies. From a city with the highest maternal and infant mortality figures in 1921, Bombay city had become a pioneer in the field of maternal and infant welfare in the late 1930s. Therefore, the final chapter focusses on maternal and infant welfare measures implemented during the interwar period. The evolution of public health administration, the introduction of health reforms for women and children and the role of the voluntary organisations in addressing issues associated with maternal and infant welfare are all outlined in this chapter. The thesis ends with an epilogue, which offers a historical comparative approach and identifies the key

similarities between the public health crisis in present day Mumbai to that in the early twentieth-century colonial city.

V. METHODS AND SOURCES

This study is primarily based on archival research. It draws on a wide range of primary source material in the United Kingdom and India. In the UK, I conducted research at the British Library, the Wellcome Institute for the History of Medicine Library and the Centre for South Asian Studies Library at the University of Cambridge. During my field work in India, I collected data from Maharashtra State Archives, the University of Mumbai Library, the Asiatic Society, the Municipal Corporation of Greater Mumbai Archives, the Indian Institute of Population Studies, and Mumbai Marathi Granth Sangrahalay in Mumbai, and the Nehru Memorial Museum and Library in New Delhi.

Much of the primary source information consulted for my research project comprises government documents such as the Census Reports, the Annual Executive Health Officer's Reports published by the Bombay Municipal Corporation, the Annual Sanitary Commissioner's Report for Bombay Presidency, the Bombay Municipal Corporation Standing Committee debates, the Labour Gazette and the official files listed under the General Department Compilation at the Maharashtra State Archives. The General Department compilation contains a number of official files from the colonial period dealing with public health and sanitation, which offer detailed records of the correspondence between the various government offices. These sources are crucial to outline the chronology of events and understand the agenda of the colonial state and the local self-government. The General Department files have been widely used by scholars to write empirical histories in the past, often without significant analysis. However, it is important to understand that official records often employ formal and diplomatic language, and are a reflection of the institutionalized mind-set. Further, the validity of the documents is open to question as they

may have been written selectively, to only highlight the positive outcomes. Therefore, in my thesis, I have used these official documents and files along with a wide range of local newspapers, to understand the politics around public health and to trace the development of medical relief infrastructure in colonial Bombay.

As noted above, I consulted a wide range of local newspapers published in both English and vernacular languages. Some of the important newspapers include – *Times of India*, *Bombay Chronicle*, *Navakal*, *Sanj Vartaman*, *Jam-e-Jamshed*, *Bombay Samachar*, *Janata*, etc. The *Bombay Chronicle*, a nationalist newspaper, 'was designed not only to awaken civil society into a more critical disposition vis-a-vis colonial authority',[82] but also to directly engage with the Bombay municipal government itself. *Navakal*, a Marathi daily available at the Mumbai Marathi Granth Sangrahalay provided an insight into the views of the educated middle classes who wrote in and read newspapers. Some of my arguments on caste have been supported by the coverage undertaken by *Janata*, a newspaper started by Dr Bhimrao Ambedkar in the 1930s. *Janata* has largely contributed in publishing articles on various social issues through a caste perspective and has motivated a churn within the society. The study of newspaper articles from *Janata* have helped me contextualise my caste arguments while looking at public health history in interwar Bombay.

The *Times of India* offers an exhaustive coverage on the wide range of public health initiatives undertaken and the Municipality's Standing Committee debates on health and sanitation in the colonial city. Crucially, *Times of India* enabled me to fill a number of gaps created due to the paucity of official documents during the Second World War. In researching chapters three and five of this thesis, it became evident that the *Times of India* would be a major source of reference. While acknowledging the evident biases that one might

[82] Sandip Hazareesingh, 'The Quest for Urban Citizenship: Civic Rights, Public Opinion, and Colonial Resistance in Early Twentieth-Century Bombay', *Modern Asian Studies,* 34: 4 (2000), pp. 797-829, at p. 805.

assume to be an integral part of the coverage offered by the newspaper, it is important to note that by the early twentieth century, *Times of India* began to acquire a more Indian rather than imperialist identity with Indian investors becoming stockholders in the newspaper company. Though the newspaper was started by the colonists for the colonists, it soon acquired a more nationalist tone which is evident in the kind of coverage undertaken on issues related to public health and sanitation. Having said that, the political tone of the paper was always pro- European.

The Native Newspaper Reports from the India Office Collections at the British Library, have also been extremely useful for this research project. They constitute weekly reports on a wide range of Anglo-Indian and vernacular newspapers for Bombay city, and offer a wide spectrum of views published on the various public health challenges in the city. While a number of these newspapers are available at the Maharashtra State Archives, it is becoming increasingly difficult to access them considering their fragile condition and the lack of enthusiasm displayed by some staff employed at the archives. Considering the above issues, the study of native newspapers has been crucial to understanding the opinion of the civil society, their involvement in the decision making process and the reaction of the general masses to the colonial governance in twentieth century colonial Bombay.

A third significant source of primary material used for this project is institutional records preserved by voluntary agencies. The annual reports published by the Social Service League have provided a new perspective to the critical process. The Social Service League worked in close cooperation with the Health Department, the annual reports offer an insight into their decision-making process and helps us to understand the agenda behind the various programmes implemented by the League. The League played a significant role in breaking the barriers of caste and class in the provision of medical infrastructure during the interwar period. From the influenza pandemic of 1918-19, the development of health infrastructure

for the industrial working class, the dissemination of knowledge associated with good health and wellbeing amongst the general population, the contribution of the Social Service League has been crucial throughout. Last but not the least, a number of photographs have been collected from various sources to provide visual documentation for the time period under consideration.

The inclusion of more vernacular material on public health and sanitation such as leaflets, and books, would have immensely benefitted some of the arguments made in this thesis. Unfortunately, despite numerous efforts, not many vernacular source materials (other than the newspaper articles) were found at the time of data collection. In conclusion, this research project relies heavily on the government documents, newspapers, institutional records and photographs to reconstruct the public health history of interwar Bombay.

CHAPTER ONE

Trends in Health and Mortality: Bombay City, 1911- 1945

A quick glance at the historiography on public health and urban governance, allows us to conclude that historians and scholars have failed to provide a systematic explanation of mortality patterns in colonial Bombay city. The work done by Ira Klein on urban development and death between 1870 and 1914 is the only study available that attempts to draw interconnections between development projects and mortality rates in the city.[1] As far as twentieth-century colonial Bombay is concerned, most public health histories stop with the end of the First World War.[2] The first half of the twentieth century and in particular, the interwar period is crucial as it acts as a bridge between colonial and post-colonial Bombay city. It is also a period when Bombay recorded both its highest and its lowest mortality rates during the colonial era. Therefore, this chapter identifies trends in health and mortality for the city of Bombay between 1914 and 1945. In this attempt to identify major trends and study the dynamics of declining mortality rates for Bombay, I will look closely at determining factors such as demographic changes, nature of urban governance, living conditions, major diseases, the intersectionality of caste and class, and the effects of industrialization.

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[1] Ira Klein, 'Urban Development and Death: Bombay City, 1870 – 1914', *Modern Asian Studies*, 20:4 (1986), pp. 725-754.
[2] David Hardiman, 'The Influenza Epidemic of 1918 and the Adivasis of Western India', *Social History of Medicine*, 25:3 (2012), pp. 644-664 at p. 646.

I. BOMBAY'S HEALTH IN THE EARLY TWENTIETH CENTURY

The plague epidemic of 1896 ravaged the city for nearly half a decade and added to what were already very high mortality rates.[3] It was the impact of the epidemic that forced the colonial state and the municipality to provide a balanced and systematic urban development plan for the city.[4] For this very purpose, the Bombay City Improvement Trust (henceforth CIT) was created on 9 December 1898. The civic agency was a first of its kind, where the colonial state took up the responsibility of addressing issues of health and sanitation in the city - mostly, by rehousing the poor.[5] A series of measures were initiated under the CIT to improve the public infrastructure and living conditions in the city. Some of the programs included: clearing of the slums, opening of the suburbs, widening and construction of roads, reclaiming the sea to provide room for expansion and building new sanitary accommodation to house the industrial workers.[6] However, the CIT lacked long-term quality decision making and by 1918 it had become entangled in a series of bureaucratic procedures, which resulted in its eventual failure.[7] The failure of the CIT had a significant impact on the health and wellbeing of the local population. It was the large-scale demolitions of the working-class dwellings, without a proper plan for rehabilitation of affected districts, which left many poor people 'homeless and at the mercy of variations in the housing market'.[8] It proved that the colonial state had tried to simplify some of the major urban issues in Bombay, instead of resolving them systematically.[9]

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[3] Mridula Ramanna, *Healthcare in Bombay Presidency 1896- 1930* (Delhi: Primus Books, 2012), p. 1.
[4] Prashant Kidambi, 'Housing the Poor in a Colonial City: The Bombay Improvement Trust, 1898-1918', *Studies in History*, 17: 1 (2001), pp. 57-79 at p. 57.
[5] Ibid., p. 57
[6] Ibid.
[7] Ibid, p. 69.
[8] Ibid, p. 79.
[9] Mansi Parpiani, 'Urban Planning in Bombay (1898-1928): Ambivalences, Inconsistencies and Struggles of the Colonial State', *Economic and Political Weekly*, 47:28 (2012), pp. 64-70 at p. 64.

As far as the population of the city were concerned, the census report of 1901 recorded little overall population growth on account of the presence of plague well into the early years of the twentieth century.[10] However, the census report of 1911[11] reflects a steady increase in the city's population from this time onwards. A careful study of the birth and death rates in the intercensal period between 1901 and 1911 allows us to conclude that the significant increase in the population of the city, was largely due to the exodus of immigrants who arrived in Bombay from various parts of the country such as Konkan, Deccan, and the United Provinces.[12] Out of the 979,445 persons recorded in the census of 1911, less than 20 percent had been born in Bombay.[13] While, the average birth rate in the city between 1901 and 1911 was 18,643 annually, the death rate was sometimes as high as 44,850.[14] These numbers clearly indicate that the work undertaken by the CIT did not reflect positively on the overall health of the city. The colonial state, on the other hand, conveniently pointed towards the migration of expectant mothers to the villages at the time of birth as the major reason for the low birth rate.[15] While it is true that it was a common practice amongst expectant mothers in Bombay to migrate to their villages at the time of giving birth, the colonial state failed to consider that for children born in the city, the mortality rate was as high as 288 per 1000 in 1910.[16] Infant mortality continued to be a pressing issue for the city even in the twentieth century.

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[10] Census of India, 1911, Vol. I, Part II - Tables (Calcutta: Superintendent Government Printing, 1913), p. 16.
[11] Ibid.
[12] Morris D Morris, *The Emergence of an Industrial Labor Force in India, A Study of the Bombay Cotton Mills, 1854-1947* (Berkeley: University of California Press, 1965), p. 63.
[13] Census of India, 1911, Vol. VIII, Part I- Bombay Town and Island, p. 10
[14] Ibid.
[15] Ibid.
[16] Ibid.

II. DECLINE IN DEATH RATES, 1914 - 1945

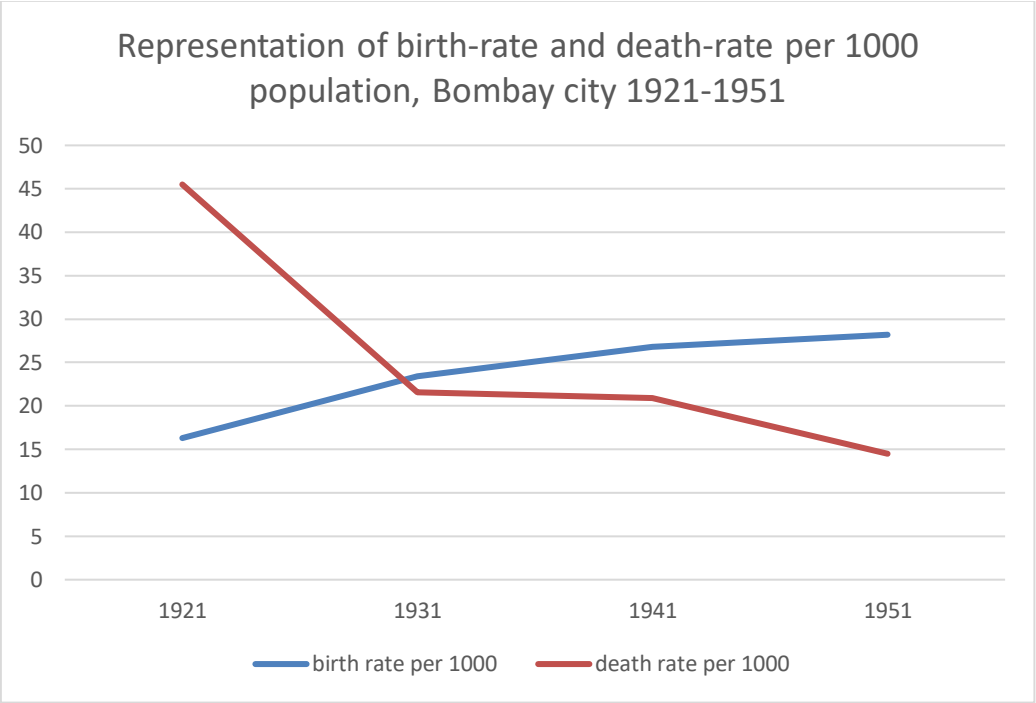
The most striking change in the inter-war period was the steep decline in mortality rates for the city of Bombay from the mid-1920s through to the 1940s. A look at the general mortality figures in the Maharashtra State Gazetteer indicates that 'since 1920 the total births in Bombay City showed a steady increase whereas total number of deaths fell rapidly'.[17]

Table 1.1: Births and deaths between 1921 and 1951.[18]

	1921	1931	1941	1951
Total population	11,75,914	11,61,383	14,89,883	23,25,945
Area (sq.miles)	23.5	24.2	26.2	26.2
Births				
Males	9,979	14,084	20,638	33,721
Females	9,146	13,120	19,316	31,958
Total	19,125	27,204	37,954	65,676
Birth rate/1,000	16.3	23.4	26.8	28.2
Deaths				
Males	N.A.	13,494	16,946	18,473
Females	N.A.	11,611	14,150	15,368
Total	53,609	25,105	31,096	33,841
Death rate/1000	45.5	21.6	20.9	14.5

[17] K. K. Chaudhari (ed.), *Maharashtra State Gazetteers*, Greater Bombay District, Vol. III, Gazetteers Department, Government of Maharashtra (Bombay: Government Central Press, 1986), p. 181.
[18] Ibid.

Figure 3: The following is a representation of the above data in the form of a line graph:



In order to understand the reasons behind the decline in death rates in the interwar years, it is crucial to divide the analysis into four parts: a period of stability between 1913 and 1917; very high mortality figures during the influenza pandemic between 1918 and 1921; a period of steep decline from between 1922 and 1937; and finally a period of gradual decline between 1938 and 1945. The first period, between 1913 and 1917, was one marked by stability in death rates. J. Sandilands, the Health Officer for Bombay, reported that the years between 1913 and 1917 marked the only quinquennial period in the early decades of the twentieth century which was relatively healthy for the city. As explained by the health officer, the term 'relatively healthy' meant that no epidemic diseases were present in Bombay.[19] In 1918, the city was affected by the influenza pandemic. Influenza had a strong impact on the mortality figures in the city for the next few years and has been extensively studied in Chapter

[19] J Sandilands, 'The Health of the Bombay Workers, Relation of Death Rate to Overcrowding', *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1922) Vol. I, Issue 2, p. 14.

Two of this thesis. Therefore, in this chapter, I will largely focus on the period between 1922 and 1937, and between 1938 and 1945.

The period between 1922 and 1945 saw work undertaken by the Bombay Development Directorate towards housing, the active involvement of private philanthropists and social service organisations in the matters of public health and sanitation, the presence of malaria and tuberculosis (which resulted in anti-malaria and anti-tuberculosis campaigns), high infant mortality rates, inadequate healthcare infrastructure, and large-scale poverty and insanitary living conditions amongst the poorer sections of the society. Therefore, in the following section, I attempt to identify interconnections between the various themes and examine the reasons for the declining mortality rates in the inter-war period.

III. DISEASES

In the nineteenth century, the colonial government concentrated its attention on diseases such as smallpox, cholera, and plague. The presence of diseases such as malaria and tuberculosis were ignored by the colonial authorities, despite the high mortality figures recorded in Bombay. Ira Klein has found that more than 20% of all deaths in colonial India were caused by chronic epidemic malaria and that from the mid-1890s through to 1920, it probably claimed 20 million lives.[20] However, it is important to note that research on malaria during this period was at an embryonic stage and different types of fevers were often categorised as malarial fever in the government reports. Therefore, the accuracy of figures remains in some doubt. Mark Harrison states that one of the prominent reasons for malaria to go unnoticed, unlike plague and cholera was that – they did not display disruptive effects on the local social, political and economic systems.[21] It was the impact of the plague epidemic

[20] Ira Klein, 'Malaria and Mortality in Bengal 1840-1921', *Indian Economic and Social History Review*, 9:2 (June 1972), pp. 132-60 at p.135.
[21] Mark Harrison, *Public Health in British India, Anglo-Indian Preventive Medicine, 1859-1914* (Cambridge: Cambridge University Press, 1994), p. 163.

that, forced the colonial and local government in Bombay to reconsider their policies associated with health and sanitation.

At the turn of the century, following the plague epidemic, the colonial state and the Bombay Municipal Corporation were compelled to conduct investigations into the heavy mortality rates from other diseases such as malaria and tuberculosis in the city. The proceedings of the Bombay Municipal Corporation make it clear that influenza, malaria and tuberculosis emerged as major concerns for the city in the interwar period.

Table 1.2: Deaths due to various causes between 1921 and 1951 for the city of Bombay.[22]

	1921	1931	1935	1941	1945	1951
Measles	201	45	264	199	160	96
Influenza	1,389	130	72	44	32	6
Enteric fevers	152	186	232	554	616	262
Diarrhoea, enteritis and dysentery	4,957	1,295	1,235	1,374	N.A.	1,156
Respiratory diseases	21,982	9,096	10,642	10,186	13,771	8,784
Diphtheria	N.A.	25	28	70	N.A.	90
Total deaths	53,609	25,105	29,289	31,096	40,215	33,841

In addition to the impact of the plague epidemic on urban governance, by the 1900s, malaria also began to be associated with urban insanitation, poverty, the labouring classes, and racial degeneration. This was largely due two reasons: first, the fact that malaria as a disease could now be quantified easily in terms of 'spleen rates' and could be counted, controlled and compared. The second reason was that, as argued by Kidambi, after 1896 the colonial state created a perception amongst the local elites and the professional middle class that the poorer sections of the society were the 'carriers of disease' in the city.[23] As far as tuberculosis was concerned, the high rate of the disease amongst the millworkers was closely

[22] Chaudhari, *Maharashtra State Gazetteer*, Greater Bombay District, p. 216.
[23] Prashant Kidambi, *The Making of an Indian Metropolis - Colonial Governance and Public Culture in Bombay, 1890-1920* (Aldershot: Ashgate Publishing Ltd, 2007), p. 70.

linked to their living conditions and their lack of adequate nutrition in their diet.[24] All the above-mentioned factors combined to determine the nature of the anti-malarial and anti-tuberculosis campaigns in the city of Bombay between 1911 and 1945.

i) Malaria

Malaria was identified as a growing concern at the beginning of the twentieth century and this resulted in the formation of a committee, by the Bombay Municipal Corporation, to investigate the spread of malarial fevers in Bombay city.[25] Before the Municipality could formulate any comprehensive policy to tackle the problem of malaria, the city faced another severe epidemic of malaria in 1908.[26] The masses in the city were agitated by the inefficiency displayed by the local government in dealing with the epidemic.[27] Therefore, an investigation was initiated into the epidemic and malaria in general under the leadership of Dr. C. A. Bentley in 1909.[28] Bentley, in his report, stated that the epidemic of malaria was due to the presence of hundreds of *Neocellia stephensi*[29] in the wells across the city.[30] Bentley also emphasized on a need for a strict legislation as a part of the anti-malaria program in the city. The report challenged the prominent view that had existed among many government officials – that the ill-drained and low-lying areas in the centre and to the north of the city were more prone to malaria than the southern parts of the city. Bentley stated that the southern parts of the city - A, B, C, D, and E wards were more malarious than the low-lying areas in the north,

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[24] Ramanna, Health Care in Bombay Presidency, p. 58.
[25] C. A. Bentley, *Report of an investigation into the cause of malaria in Bombay and the measures necessary for its control* (Bombay: Government Central Press, 1911), p.24.
[26] V. Kamat, 'Resurgence of malaria in Bombay (Mumbai) in the 1990s: a historical perspective', *Parassitologia*, 42:1 (2000), pp. 135-48 at p. 139.
[27] Ibid.
[28] Ibid.
[29] *Neocellia stephensi* is an important malaria vector found in India and other parts of the world such as Middle East and Africa.
[30] Bentley, *Report of an investigation into the cause of malaria in Bombay*, p. 152.

and recommended a scheme for abolition of malaria in the five wards.[31] An inspector was appointed for every ward, to supervise the anti-malaria campaign.[32]

Following Dr Bentley's report, an extensive anti-malaria campaign was initiated, with one of its more prominent measures being the closure of many wells in the city. Bentley's suggestions were taken seriously by the Municipality and a Special Malaria Department for Bombay was set up in 1912.[33] The Municipality firmly believed that the open wells were breeding sites for the mosquitoes and therefore required to be closed. However, this decision was met with a severe opposition from the inhabitants of the city.[34] On 4 August 1914, a public meeting was held in the Town Hall to discuss 'the hardships that the general masses were being subjected to in the name of Malaria'.[35]

In their petition to the government, the citizens of Bombay pointed out that one of the principal reasons for the prevalence of malaria in the city was not the open wells, but the water accumulation in areas such as Bhoiwada and Naigaum Hills due to incomplete drainage work on the part of the CIT.[36] A number of individuals also had their wells privately assessed by medical professionals and provided certificates that challenged the decision made by the municipality. For example, the treasurers and managers of the Halai Bhatia Mahajanwadi got their well water examined by the Chemical Analyser appointed by the government, who issued a certificate stating that he had 'failed to detect any mosquito larvae' in the well.[37] The local residents also quoted Patrick Geddes in their letter who, in in his lecture on 'Town planning in Indian Cities Historic and Recent', strongly condemned the policy of closing up

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[31] Ibid.
[32] Gordon Covell, *Malaria in Bombay* (Bombay: Government Press, 1928), p. 10
[33] Kamat, 'Resurgence of malaria in Bombay', p. 139
[34] 'Municipal Matters Bombay- Protest in connection with the measures taken by the Bombay Municipality in regard to privately owned wells in the city for the prevention of malaria', General Department Compilation, File no. 1099, 1916, Maharashtra State Archives (henceforth MSA).
[35] Ibid.
[36] Ibid.
[37] Ibid.

of the wells. He believed the quality of water could be improved and that malaria could be stamped out without closing the wells.[38] This makes it evident that there was a serious difference of opinion between the Bombay Municipal Corporation and the native population in the city.

Despite a series of petitions filed by the general masses, the Municipality went ahead with its plan to close both, public and private wells in the city. Between 1914 and 1918, a number of wells were closed down by the municipality. The Malaria Committee Papers mention that 'in 1914, 348 wells were totally filled in, 348 were hermetically covered, in 123 of which hand-pumps were allowed'.[39] In 1918, the city officials assumed that the malaria problem had reduced significantly and therefore, decided to dissolve the Special Malaria Department.[40] However, in 1923 a complaint from nearly 40 commercial houses in the Fort area forced the Municipality to restart the department and tackle the growing cases of malaria in Bombay.[41] As a part of the periodic investigation, Dr. Gordon Covell himself, an Indian Medical Service Officer by profession, executed a spleen survey of the island in 1928. Covell's report identified that the cases of malaria were higher in the mill district than in the southern parts of the city.[42]

Bentley's report mentioned the anti-malaria campaign in the five wards in the older parts of the city. This resulted in the Municipality focussing its attention and efforts on the closure of wells in the southern part of the city, while the water tanks and cisterns in the mill district remained uncovered.[43] Covell further added that the accumulation of water in the low lying, undrained dwellings of the millworkers, proved to be fertile grounds for mosquito

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38 Ibid.
39 Letter from the Commissioner No. 29408, dated 4 December 1914. Published in Bombay Municipal Corporation, *Malaria Committee Papers* (Bombay: The Times Press, 1915), p. 7.
40 Kamat, 'Resurgence of malaria in Bombay', p. 140.
41 Covell, *Malaria in Bombay*, p. 11
42 Ibid, p. 17.
43 Ibid, p. 18.

breeding.[44] In a report published in 1931, Dr Nusserwanjee Hormusjee Vakeel, a physician in Bombay stated that the malaria season between May to December affected approximately 25% of the mill population.[45] Furthermore, Alexander Burnett-Hurst's work, *Labour and Housing in Bombay*, published in 1925, discusses the problem of malaria in the mill district:

> Approaches to the chawls abound with dirt and filth. Kutchra or household refuse, and even excreta are thrown from the windows of the upper floors onto the streets and into the compounds. The refuse cast on the street is generally cleared away, but that thrown into the compound generally accumulates, as it seems to be nobody's business to remove it. The compound and the approaches to the chawls are generally 'kutcha' (unpaved) and in the monsoon they soon becomes quagmires with pools of water. Long after the cessation of rain the pools of water remain, become stagnant and form excellent breeding-grounds for the malaria carrying mosquito.[46]

Thus, it was not only the failure on the part of the government agencies to provide decent infrastructure such as a functional drainage system in the poor localities, but also the ignorance on the part of the elites who dominated the local government, that was responsible for high malaria deaths in the mill district and surrounding areas until the mid-1920s. Among the infants, the cases of malaria were, F. D. Barnes wrote, 'by no means infrequent and it was found that many children had to discontinue going to school owing to constant attacks of malaria'.[47]

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[44] Proceedings of the Municipal Corporation, 1929-30, Bombay Municipal Corporation, pp. 1328-1329, June 24 1927, p. 8.
[45] Report of the Royal Commission on Labour in India, Vol I, Part I, Written Evidence: Bombay Presidency, 1931, p. 556.
[46] A. R. Burnett-Hurst, *Labour and Housing in Bombay* (London: P. S. King & Son, Ltd., 1925), p. 21.
[47] 'The Conditions of the Children of Bombay Mill Operatives', in *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1925), Vol. IV, Issue 9, p. 863.

The statistical evidence available for the period between 1921 and 1945 indicates a considerable decline in the mortality rates from malaria in these years.[48] This suggests that over a period of time, the anti-malaria campaign in the city did show positive effects on the health of the local population.[49] During the 1930s, the death rate from malaria for Bombay was even below the rural average for the first time in the history of the city.

Table 1.3: Death rate from malaria for Bombay between 1921 and 1945.[50]

Year	Deaths
1921	545
1931	131
1935	97
1941	88
1945	96

ii) Tuberculosis

Another major concern for the city was that of respiratory diseases, and particularly tuberculosis. Areas such as Nagpada, Byculla and Parel (in the C and the E wards) recorded the highest mortality rates from tuberculosis in the nineteenth century.[51] This was largely due to growth of industries and imbalanced urban development in Bombay. The location of the mills in the city was one of the major contributing factors for the higher concentration of tuberculosis patients in the eastern part of the city. The polluted air from the textile mills was carried by the wind to the eastern parts of the city, thereby, increasing the risk of respiratory diseases in general.[52] With a significant rise in the number of deaths from tuberculosis in the

[48] Chaudhari, *Maharashtra State Gazetteer*, Greater Bombay District, p. 185.
[49] Radhika Ramasubban and Nigel Crook, 'Spatial Patterns of Health and Mortality', in Sujata Patel and Alice Thorner (eds.), *Bombay - Metaphor for Modern India* (New Delhi: Oxford University Press, 1995), pp. 143-169 at p. 155.
[50] Ibid, p. 154.
[51] Ibid., p. 147.
[52] Ibid.

early decades of the twentieth century, the upper-class residents living in Byculla and adjoining areas began to move to healthier locations on the western side of Bombay.[53]

Table 1.4: Statistics showing deaths due to tuberculosis in Bombay city:[54]

Year	Deaths
1921	1,566
1931	1,929
1941	1,692
1945	1,981

Table 1.5: Death rates from tuberculosis in India and British cities in 1911.[55]

City	Death rate per 1000
Bombay	2.9
Calcutta	2.5
Manchester	2.3
Glasgow	2.2

Along with air pollution, unsanitary living conditions, overcrowding in the mill district and long working hours in the textile industry, were some of the fundamental reasons for the rise in the cases of tuberculosis. The mill workers spent most of their time during the day in the mills where the 'fiber laden, humid atmosphere in the mills caused respiratory and lung diseases such as tuberculosis'.[56] John Andrew Turner,[57] and Nasarwanji Hormusji Choksy,[58] a medical professional, believed that poverty was the root cause of the spread of the disease. They believed that in addition to the environmental and societal factors, the lack of adequate nutrition in the diet of the mill workers was one of the important reasons why the poor succumbed so often to infection.[59] Together, Turner and Choksy established the

[53] Ibid., pp. 144-46.
[54] Chaudhari, *Maharashtra State Gazetteer*, Greater Bombay District, p. 186.
[55] Ramanna, *Health Care in Bombay Presidency*, p. 57.
[56] Arthur Lankester, *Tuberculosis in India: Its Prevalence, Causation and Prevention* (Calcutta: Buttermorth and Co., 1920), pp. 180-82.
[57] John Andrew Turner, was Bombay's Executive Health Officer from 1901-1919.
[58] Nasserwanji Hormusji Choksy (1861–1939) was the Chief Medical Officer of the Arthur Road Infectious Diseases Hospital in Bombay.
[59] Ramanna, *Health Care in Bombay Presidency*, pp. 58-60.

Anti-Tuberculosis League in 1912.[60] The League worked to increase awareness amongst the mill hands, about the disease and the precautionary measures to be undertaken. The Anti-Tuberculosis League is discussed in greater detail in Chapter Four of this thesis.

The mortality figures from tuberculosis continued to be high during the interwar period. Both the colonial state and the Bombay Municipality suggested a number of preventive measures to tackle the spread of the disease in the city. A report published by Sandilands, mentioned that 'the reduction in the death rate from tuberculosis and other respiratory diseases is dependent on the provision of adequate housing'.[61] However, the government agencies were largely unsuccessful in improving the conditions of the industrial labourers in Bombay. Awareness programmes undertaken by the various voluntary organisations to educate the masses about tuberculosis and related diseases were both time consuming and tedious to administer. It was only after the discovery of penicillin in 1946 that effective medical treatment was laid down for tuberculosis across the globe. Until then, the tuberculosis sanatoriums were the only medical relief provision available in the twentieth century. It is important to note that for the population and the number of cases recorded for tuberculosis, there were only a couple of sanatoriums and specialised tuberculosis hospitals in Bombay.[62]

The tables related to malaria and tuberculosis discussed above highlight the plight of the general population in the city. However, no statistical evidence is available in the colonial records which details the presence of these diseases among the lowest caste in Bombay. The work of G. R. Pradhan, as a part of a doctoral project, includes a table of the various ailments

[60] Ibid., pp. 56-7.
[61] Sandilands, 'The Health of the Bombay Workers, Relation of Death Rate to Overcrowding', p. 16.
[62] Ramanna, *Health Care in Bombay Presidency*, pp. 57-60.

prominently found amongst the Gujarati and Marathi Dalit population in the city during the interwar period.

Table 1.6: Various ailments found amongst the Gujarati and Marathi Dalit population in Bombay during the interwar period.[63]

Ailments	Number of Gujarati speaking lower caste families	Number of Marathi speaking lower caste families
Fevers and cough	332	134
Fever	92	122
Dysentery	22	2
Asthma	12	8
Consumption and Anaemia	5	3
Syphilis	2	--
Rheumatism	2	7
Stomach pain and kidney trouble	--	6
Hook-worm	--	1
Total	467	283

Pradhan studied the Mahar and Mang Garudi families in Bombay.[64] As seen above, fevers and respiratory ailments continued to find a prominent presence among the lower-caste families in the city. In addition to the lack of sanitary housing conditions, a number of other factors were responsible for the widespread presence of fevers and respiratory ailments amongst this section of the population.

IV. INTERSECTIONALITY BETWEEN CASTE AND CLASS

Ambedkar delivered a speech titled *Mukti Kon Pathe*? (Which Way to Emancipation?) in Bombay in June 1936. The speech was reproduced in his self-published news weekly *Janata*.[65] It was the first time in Indian politics that, the issue of caste and class had been jointly

[63] G. R. Pradhan, *Untouchable Workers of Bombay City* (Bombay: Karnataka Publishing House, 1938), p. 80.
[64] Ibid., p. 3.
[65] Santosh Suradkar, '*Mukti Kon Pathe*?: Caste and Class in Ambedkar's Struggle', *Economic and Political Weekly*, 52:49 (2017), pp. 61-68, at p. 61.

addressed, highlighting the interconnections between caste, class, and religion in Indian society.[66] The speech paved way to the understanding of the term 'untouchability' as something that was 'a class struggle between the untouchables and the touchables'. Ambedkar argued that within the lower classes, the position of the Dalits 'emphasised a structural necessity to address the untouchables' question separately'.[67] Here, using Ambedkar's arguments, I analyse the trends in health and mortality for the lower caste labour community in Bombay during the inter-war period. Using the available statistical information, I argue that the reduction in the mortality rates was largely restricted to the upper caste population and the lower castes continued to suffer discrimination in the various spheres of public life.

Burnett-Hurst in his work states that the 'principals castes engaged as industrial labour were the Marathas, Dheds, Mahars, Chambhars and Mohammedan Sheikhs'.[68] The Dheds, Maharas and Chambhars have been identified as the untouchable or Dalit groups.[69] Each of the above-mentioned caste groups performed fixed functions in the mills. The Dheds and the Mahars worked as labourers and scavengers, and the Chambhars worked as mill operatives, in tanneries and other leather works.[70] Pradhan, in his research, states that the work entrusted to the lower caste working population in the city was of the lowest order. They were largely recruited as scavengers in the various government offices such as the Bombay Municipal Corporation, the railways, and elsewhere.[71] It was rare, for example, for an individual belonging to the lower caste community, to be recruited for clerical positions.[72] In the mills, 82.6 percent of lower-caste men were employed in the ring department and a

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66 Ibid., pp. 63-65.
67 Ibid.
68 Burnett-Hurst, *Labour and Housing in Bombay*, p. 14.
69 Ibid.
70 Ibid.
71 Pradhan, *Untouchable Workers of Bombay City*, p. 48.
72 Ibid., p. 50.

majority of the women in the reeling department. Both these departments were the lowest paying department in the mill industry.[73] Their income status did not allow the lower-caste population to opt for a nutrient-driven food intake, and this resulted in immune system deficiencies and thus exposed them to an increased number of illnesses.[74] Low wages also meant that the members of the lower caste communities found it increasingly difficult to consult doctors at the time of illness, as they could not afford the payment of medical fees.[75]

The lack of access to clean water was a major determining factor for health and mortality amongst the lower caste in Bombay. Even in the twentieth century, the Dalit population in the city could not access water from public wells which were used by the upper class.[76] In addition, the distribution of water in the Bombay Development Directorate (henceforth BDD) and the CIT chawls was also largely unfair in nature as water closets and water taps were provided in proportion to the number of rooms and not the number of tenants residing in each chawl.[77] Most of the chawls occupied by lower-caste communities recorded a higher density of tenants than those occupied by the upper class.[78] Therefore, due to the rush at the water taps and inadequate number of water closets, access to clean water was often denied and the lower caste localities resided in filth.[79] Together, these factors were responsible for the very high mortality rates from fevers, dysentery, and various respiratory diseases among the lower-caste localities in the city.

Another major factor was the lack of adequate public health infrastructure in the early decades of the twentieth century. Though there was a significant rise in the establishment of government and municipal hospitals after the influenza pandemic of 1918,

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73 Ibid., pp. 58-59.
74 Ibid., p. 75.
75 Ibid., p. 76.
76 'Untouchable Classes', in *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1924), Vol. III, Issue 3, p. 29.
77 Pradhan, *Untouchable Workers of Bombay City*, p. 23.
78 Ibid.
79 Ibid.

the ratio of hospital beds available per 1,000 population continued to be largely inadequate for the size of the city. The expansion of public health infrastructure during the interwar period was largely due to generous contributions on the part of the local population. A majority of the private hospitals in the city catered to members of particular religion, caste, or community. It meant that the lower-caste population often found themselves dependent on limited facilities provided by the government agencies or on the welfare programs initiated by the voluntary organisations such as the Bombay Sanitary Association, the Social Service League, the Young Men's Christian Association, etc.

While the general public health institutions between 1920 and 1950 almost doubled, it was still largely inadequate for the population of Bombay. The period between 1937 and 1945 saw the 'greatest demographic strain ever to be placed upon the city'.[80] There were two reasons for this: first, the effects of the Second World War and the resultant economic boom which provided increasing job opportunities; and second, the Muslim migration to the city to avoid religious intolerance and violence, closer to independence. There was a 33 percent rise in the city's population between 1931 and 1941[81]; and from 1941 to 1951, the population of greater Bombay area increased by a massive 76 percent.[82] The city was able to accommodate the growing influx of migrants, largely due to opening of the northern suburbs for housing the industrial labour population in 1937. The Bombay Municipal Corporation decided to expand the city further north with a view to decongesting the overcrowded localities in the southern parts of the city.[83] Focussing on healthcare infrastructure available for women in the city, the following table highlights that over the entire first half of the twentieth century, the number of hospitals and dispensaries for women remained the same.

[80] Ramasubban and Crook, 'Spatial Patterns of Health and Mortality', p. 154.
[81] Ibid.
[82] Ibid, p. 153.
[83] Ibid.

Table 1.7: The total number of public aided hospitals and dispensaries between 1921 and 1951 in Bombay city.[84]

	1920	1930	1940	1950
General Hospitals and dispensaries	21	30	38	51
Hospitals and dispensaries for females	7	7	8	7

The urban public health challenges in early twentieth-century Bombay were not limited to occurrences of epidemics and prevalence of diseases such as malaria and tuberculosis, or to the lack of adequate public hospitals and dispensaries. During the inter-war period, the issue of rising infant mortality in the city was also a matter of great concern not only to the government agencies, but also to the mill owners and voluntary organisations. At the beginning of the twentieth century and especially during the influenza years, the infant mortality rates for the city were among the highest in the world.[85] For an industrial city such as Bombay, health of the labouring population was crucial from the point of view of economic prosperity. This resulted in a collaboration between the public and the private sector in implementing various welfare policies associated with maternal and infant health in the city. The collaboration resulted in a significant reduction in the infant mortality rates towards the mid-twentieth century. Chapter Five of the thesis highlights the various initiatives undertaken to promote maternal and infant welfare in Bombay. The collaboration between the public and the private sector, and in particular the work done by voluntary organisations was crucial in reducing infant mortality for the city of Bombay. The following set of tables highlight the decline in infant mortality rates between 1920 and 1950.

[84] Chaudhari, *Maharashtra State Gazetteer*, Greater Bombay District, p. 189.
[85] A Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, 1919, General Department Compilation, File no. 353, 1918, MSA.

Table 1.8: Deaths among infants under one year in Bombay for 1921, 1931, 1941, and 1951.[86]

	1921	1931	1941	1951
Infant deaths	12,751	7,401	8,445	9,746
Rate per 1000	668	272	211	N.A.

Table 1.9: Infant Mortality Rates (per thousand births), Bombay between 1920 and 1950.[87]

Year	Rate
1920	552.2
1930	296.2
1940	201.4
1950	151.6

As mentioned in the earlier analysis on the intersectionality between class and caste, among the lower caste population, a large of number of people lived in a single room. The statistical evidence provided by Burnett-Hurst suggests that there was a strong link between one-room tenements and infant mortality. He refers to the Annual Reports of the Health Officer to consolidate the following table:[88]

[86] Chaudhari, *Maharashtra State Gazetteer*, Greater Bombay District, p. 183.
[87] Ramasubban and Crook, 'Spatial Patterns of Health and Mortality', p. 155 (Source: Annual Report of the Executive Health Officer for the year 1981, Bombay Municipal Corporation.)
[88] Burnett-Hurst, *Labour and Housing in Bombay*, p. 41.

Table 1.10: Births and infant deaths for Bombay between 1918-1921.

	BIRTHS IN 1921		INFANT DEATHS IN 1921		INFANT MORTALITY PER 1,000 BIRTHS REGISTERED			
	Nos. (00's)	Percent.	Nos. (00's)	Percent	1918	1919	1920	1921
1 room and under	150	76	94	87	767	831	631	828
2 rooms	20	10	6	6	499	565	304	322
3 rooms	4	2	1	1	375	358	295	191
4 or more rooms	3	1.5	1	1	239	189	289	133
Road-side	0.25	0.1	0.1	0.1	133	543	400	485
Hospitals	20	10	6	6	79	112	309	190

In addition, the work done by Pradhan for the years between 1933 and 1935 shows that among the for the infants born to Gujarati and Marathi Dalit families, the death rate was 341.5 and 434.8 per 1,000 children respectively.[89] These figures are significantly higher than the average infant mortality rates for Bombay between 1930 and 1940. The survey further reveals that in most cases of infant mortality, fever was accompanied by cough.[90] Fevers, however, were not classified in any further detail. Some of the prominent reasons for high infant mortality rates among the lower-caste population was the lack of access to medical facilities, the lack of adequate infant and maternal health infrastructure, insanitary living conditions, and low family income resulting in long working hours and malnourishment.[91] Therefore, one can conclude that the reduction in infant mortality for the city of Bombay was limited to the upper-class population during the inter-war period.

[89] Pradhan, *Untouchable Workers of Bombay City*, p. 85.
[90] Ibid, p. 90.
[91] Ibid, pp. 82- 91.

Nikhil Rao in his work *House, but No Garden: Apartment Living in Bombay's Suburbs, 1898–1964*, illustrates how the 'pressures on land prices generated by the boom of 1861 and 1856' was responsible for the 'richer middle class' residing in flats, while the lower income groups continued to reside in overcrowded localities in the mill districts.[92] Rao argues that the inclusion of the toilet inside the limits of the flat, emerged as an essential feature of the 'self-contained flat' and 'was intimately connected to emerging notions of middle-class identity in 1920s and 1930s Bombay'.[93] It also was reflective of the changing notions of sanitation amongst the middle class in inter-war Bombay, as these flats were mainly occupied by the upper-caste, white collar workforce in the city.

V. COLONIAL STATE AND THE DEVELOPMENT ETHOS IN INTER-WAR BOMBAY

During the First World War, the attention of the colonial state was diverted from focussing on issues of urban governance to the ongoing war activity. However, there was a significant rise in the migrant population of Bombay between 1911 and 1921. The E, F and G wards accounted for majority of the population growth in these years.[94] The great influx of the migrant population due to the economic boom witnessed during these years, intensified the pressure on the existing health and housing infrastructure in the city. Overcrowded working-class neighbourhoods and insanitary conditions became a common sight in and around the mill district.[95] Further, the failure of the CIT aggravated the problems associated with the shortage of industrial housing and directly threatened the public health of Bombay.[96] As Kidambi has pointed out, 'by the end of the First World War, the housing situation for

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92 Nikhil Rao, *House, but No Garden: Apartment Living in Bombay's Suburbs, 1898–1964* (Minneapolis: University of Minnesota Press, 2013), p. 98.
93 Ibid, pp. 102- 103.
94 Census of India, 1911, Vol IX, Part II, pp. 158-159.
95 Annual Report of the Municipal Commissioner of Bombay for the year 1919, Bombay Municipal Corporation (Bombay: Times Press, 1920), p. 3.
96 Ibid, p. 4.

Bombay's labouring classes has attained crisis proportions. In July 1919, it was reported that out of a population of 1,200,000 nearly 892,000 resided in one-room tenements and that there was a shortfall of 64,000 tenements in the city'.[97]

The work done by Burnett-Hurst and Dr. Florence Barnes on the health conditions of the industrial labour force in Bombay identify the mill district and the adjoining areas as densely populated areas. In many cases, 15 people lived in single chawl rooms measuring just 100 square feet,[98] which were described as ill ventilated, damp, dark, and dirty spaces in the various government reports.[99] Turner, the Health Officer for the city stated in his annual report that any effort to improve the sanitary conditions of the chawls was almost impossible, as the building structures were in a bad shape. They could not take the weight of a water tank or a sewage pipe.[100] The census report of 1921 also throws light on the extent of overcrowding in Bombay. It mentions that 'in Bombay City there is one building for every 22.3 persons and in Ahmedabad for every 6.2 persons. There is no comparison between overcrowding in Bombay and overcrowding in London. The Bombay conditions are far worse'.[101]

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97 Kidambi, 'Housing the Colonial Poor', p. 79.
98 Burnett-Hurst, *Labour and Housing in Bombay*, p. 20 and F. D. Barnes, 'Maternity Benefits to Industrial Workers, Final Report of the Lady Doctor', in *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1923), Vol. II, Issue 2, p. 31.
99 Barnes, 'Maternity Benefits to Industrial Workers', p. 31.
100 Annual Report of the Municipal Commissioner of Bombay, 1919, Bombay Municipal Corporation (Bombay: Times Press, 1920), p. 59.
101 *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1923), Vol. II, Issue 1, p. 21.

Table 1.11: Persons per acre in Bombay between 1901 and 1931.[102]

Ward	1901	1911	1921	1931
A	40	49	52	36
B	214	215	203	179
C	325	384	431	373
D	49	70	90	95
E	92	109	114	113
F	13	18	31	34
G	24	39	44	43
TOTAL	54	67	78	75

To address the acute shortage of industrial housing in the city, the Government of Bombay introduced a grand scheme in 1920 to construct 50,000 chawl rooms at a cost of 5.5 crores rupees.[103] They established a special department called the Bombay Development Department to oversee, the entire scheme of chawl construction.[104] This was the third attempt by the colonial state towards urban planning and housing development in the city.[105] By the end of 1929, the Development Department had constructed nearly 200 chawls for the industrial labour in the city.[106] However, the mill workers in Bombay could not afford the high rental prices and therefore, a majority of the newly constructed chawls were left unoccupied. This resulted in huge losses for the department.[107] The Advisory Committee of the BDD interpreted the non-occupancy of the chawls as a decline in demand. However, this contradicted the data of industrial housing that the government agencies and observers provided during the policy making process.[108]

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[102] Ramasubban and Crook, 'Spatial Patterns of Health and Mortality', p. 150. [Source: Meera Kosambi, *Bombay in Transition: The Growth and Social Ecology of a Colonial City, 1880–1980* (Stockholm: Almqvist and Wiksell International, 1986).]
[103] Final Report of the Special Advisory Committee on the Industrial Housing Scheme, Published in Bombay Legislative Council Debates, 1927, p. 1.
[104] Burnett-Hurst, *Labour and Housing in Bombay*, p. 33.
[105] Parpiani, 'Urban Planning in Bombay', p. 68.
[106] Neera Adarkar, 'Gendering of the Culture of Building: Case of Mumbai', *Economic and Political Weekly*, 38:43 (2003), pp. 2527-2534, at p. 4529
[107] Final Report of the Special Advisory Committee on the Industrial Housing Scheme, Published in the Bombay Legislative Debates, 1927, p. 1.
[108] Ibid, p. 5.

As far as the construction of the BDD chawls was concerned, they were built using reinforced cement concrete framework and brick walls. These chawls have received considerable criticism not only from various architects, but also from scholars working on Bombay's urban condition. Sir Claud Bately called the BDD chawls as 'cheerless, architect less, gardenless,'[109] while Patrick Geddes compared them to 'Boleshevik barracks'.[110] The architects and the planners paid no attention whatsoever to the health and wellbeing of the occupants residing in these chawls. Though the BDD chawls were constructed as large open spaces which included a play-ground and a community hall, there were multiple structural problems with the buildings. The construction of the chawls was such that single-room tenements were built facing a common corridor in the front and rear, each room was approximately 10 ft. by 12 ft. in size, and the common toilet blocks located at the end of the rear corridors.[111] Each room in the BDD chawls housed upwards of 25 people - this was 'made possible because of the different time shifts in the mills'.[112] The overcrowding resulted in overwhelming pressure on the chawls' (barely existent) infrastructure. Therefore, the available literature on the BDD chawls describe them as 'unhygienic and cramped'.[113]

The situation was even worse for the lower-caste population in the city. There was a significantly greater overcrowding in each room in the case of the lower caste population, in comparison with the upper castes. G. R. Pradhan, in his doctoral thesis, mentions that 'the houses of the members of the Depressed Classes present a dismal appearance …. [To] turn a verandah - if there is one - into a bedroom, they fix up gunny bags all around it, and to protect themselves from the sun and the rain they put worn out pieces of gunny or even of

[109] Adarkar, 'Gendering of the Culture of Building', p. 4529
[110] Ibid.
[111] Burnett-Hurst, *Labour and Housing in Bombay*, p. 33.
[112] Barnes, 'Maternity Benefits to Industrial Workers', p. 31.
[113] Maura Finkelstein, 'Ghosts in the Gallery: The Vitality of Anarchronism in a Mumbai Chawl', *Anthropological Quarterly*, 91:3 (2018), pp. 937-968, at p. 950.

rags on the windows and the doors'.[114] A considerable percentage of the lower caste population did not reside in chawls constructed by the government agencies or mill owners, instead they lived in huts made of tin pieces from oil cans.[115] According to Burnett-Hurst, the untouchables faced many difficulties in securing housing in the city. He mentions that 'no other community will live near them [the Dalits]. When they cannot find a room in the chawls set apart for them, they live in sheds or huts'.[116] Juned Shaikh argues that 'for the town planners, city administrators and sociologists, the quality of built environment betrayed not just the class status of the individual and the group, but also revealed the caste rank of the people who occupied it'.[117] Thus, the development ethos of the colonial state in the form of the CIT and the BDD had little impact on the lower caste population in the city. They were devoid of basic necessities crucial for leading a healthy life. The Dalit population lived in insanitary conditions which were conveniently ignore by the colonial state and the local elites in the Bombay Municipal Corporation.

[114] Pradhan, *Untouchable Workers of Bombay City*, pp. 11-12.
[115] Ibid, p. 13.
[116] Burnett-Hurst, *Labour and Housing in Bombay*, p. 20.
[117] Juned Shaikh, 'Imaging Caste: Photography, the Housing Question and the Making of Sociology in Colonial Bombay, 1900-1939', *South Asia: Journal of South Asian Studies* 37:3 (2014), pp. 491-514, at p. 494.

Table 1.12: List of localities occupied by the Dalit Gujarati speaking population in inter-war Bombay.[118]

Serial No.	Locality
1.	Annesly Road
2.	Arthur Road
3.	Bhendi Bazaar
4.	Byculla
5.	Chinchpokly
6.	Dadar Main Road
7.	Dadar Railway Quarters
8.	Elphinstone Road
9.	Girgaum
10.	J. J. Hospital Quarters
11.	Gunbow Street
12.	Mogul Gully
13.	Mhatarpakadi
14.	Prabha Devi
15.	Parel, Poibavadi
16.	Sukhalaji Street
17.	Tarvadi
18.	Taikalwadi, Dadar
19.	Umarkhadi
20.	Walpakhadi
21.	Worli
22.	Wadi Bunder

[118] Pradhan, *Untouchable Workers of Bombay City*, pp. 6-7.

Table 1.13: List of localities occupied by the Dalit Marathi speaking population in inter-war Bombay.[119]

Serial No.	Locality
1.	Agripada
2.	Antop Hill
3.	Byculla
4.	Cotton-Green
5.	Delisle Road
6.	Dharavi
7.	Elphinstone Road
8.	Foras Road
9.	Kamathipura
10.	Labour Camp, Matunga
11.	Mang-Garudi Camp, Matunga
12.	Mazgaon
13.	Morland Road
14.	Naigaon Road, Dadar
15.	Nawab Street
16.	Parel, Poibavadi
17.	Parel Village
18.	Sewree
19.	Taikalwadi, Dadar
20.	Worli

The statistical evidence provided have established strong connection between good housing conditions, health and mortality. However, 'no serious attention' was given to the improvement of housing infrastructure for the lower caste population in the city by the colonial state or the Bombay Municipal Corporation.[120] One of the prominent reasons being that the labour class, which was a majority of Bombay's population in the first half of the twentieth century, barely found representation in the governing bodies until the late 1920s. The Bombay Legislative Council and the Bombay Municipal Corporation was dominated by the local elites. In a meeting held of the *Kamgar Hitwardhak Sabha*,[121] the issue of labour

[119] Ibid.
[120] Burnett-Hurst, *Labour and Housing in Bombay*, p. 14.
[121] *Kamgar Hitwardhak Sabha* was one of the earliest associations of Indian workers set up in 1910.

welfare was discussed and the mill workers 'urged the Government of Bombay to nominate a labour representative on the Bombay Legislative Council from the backward classes and not from the capitalists'.[122] However, the colonial state continued to ignore the demands put forth by the industrial working-class population in the city. The issue of labour representation in the Bombay Municipal Corporation was only taken up in 1928.[123] A bill was initiated to amend the Bombay Municipal Act so 'as to increase the number of councillors from 106 to 110 with a view to nominate labour candidates in the four additional seats'.[124] The lack of representation for the industrial working-class in the colonial and municipal politics had a serious impact on the policy making process associated with the health, well-being and welfare of the mill workers in the city, and particularly of the lower-castes.

VI. ROLE OF THE VOLUNTARY AGENCIES AND SOCIAL SERVICE ORGANISATIONS

Civil society worked in close co-ordination with the Municipality to address the issues associated with public health and sanitation in Bombay city. During the inter-war period, they were at the forefront of providing medical relief during the influenza pandemic, provided financial assistance for the development of public health infrastructure, actively demanded the increase in the recruitment of Indian medical professionals in the Indian Medical Services (IMS), and worked as volunteers in the numerous voluntary organisations. The Bombay Sanitary Association, the Social Service League, the Anti-Tuberculosis League, the Bombay Presidency Infant Welfare Association, the Young Men's Christian Association,

[122] 'Welfare of Mill Hands' in *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1924), Vol. III, Issue 2, p. 30.
[123] 'Labour Representation- Bombay Corporation Committee's Views', in *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1928), Vol. VII, Issue 9, p. 655.
[124] Ibid.

and other such institutions implemented a number of programmes to tackle the various health challenges facing the city. They worked closely with the industrial labour force to generate awareness and educate the masses on aspects of public health, hygiene and sanitation. However, the work of the voluntary organisations - as pointed out by Shaikh - also had implicit bias of caste, class, and community. In his work, Shaikh suggests that for social scientists and the social workers, 'the untouchables were more unhygienic and their houses more appalling than other communities in the city'.[125] The details of the work undertaken by the voluntary organisations is critically examined in this thesis in - Chapter Four, which evaluates the contribution of the social service organisation on issues related to the health and well-being of the labour force, and in Chapter Five, which illustrates the work undertaken in the field of maternal and infant welfare.

VII. CONCLUSION

Despite all the problems highlighted earlier in the chapter, one cannot deny that there was a gradual decline in the overall mortality figures for Bombay in the mid twentieth century. A look at the general mortality figures in the Maharashtra State Gazetteer indicates that 'since 1920 the total births in Bombay City showed a steady increase whereas total number of deaths fell rapidly'.[126]

[125] Shaikh, 'Imaging Caste', p. 494.
[126] Chaudhari, *Maharashtra State Gazetteer*, Greater Bombay District, p. 181.

Table 1.14: Births and deaths between 1921 and 1951.[127]

	1921	1931	1941	1951
Total Population	11,75,914	11,61,383	14,89,883	23,25,945
Area (sq.miles)	23.5	24.19	26.18	26.18
Births-				
Males	9,979	14,084	20,638	33,721
Females	9,146	13,120	19,316	31,958
Total	19,125	27,204	37,954	65,676
Birth rate per 1000	16.3	23.4	26.8	28.2
Deaths-				
Males	-	13,494	16,946	18,473
Females	-	11,611	14,150	15,368
Total	53,609	25,105	31,096	33,841
Death rate per 1000	45.5	21.6	20.9	14.5

While the census reports support the claims made by the government, it is crucial to understand that these conclusions are largely based on the values recorded the year prior to the publication of the census reports. The annual health reports submitted by the Executive Health Office for the city to the Municipal Commissioner of Bombay make it clear that, the death rate continued to fluctuate between 20 and 26 per thousand during the 1920s and the 1930s.[128] Though there was a steep decline in the mortality rates, it was not a 'rapid decline'. The process was more gradual.

In conclusion, through the course of the interwar period Bombay went from recording one of the highest mortality and morbidity rates to one of the lowest mortality rates amongst the various cities in the subcontinent. However, the decline in mortality figures was largely visible amongst the upper class and upper caste population. The work done by Pradhan and the statistical evidence available in the census reports highlight that even in the

[127] Ibid.
[128] Reports of the Executive Health Officer for Bombay City, 1920-1930, Bombay Municipal Corporation (Bombay: Times Press).

mid-1930s, the lower caste population recorded a significantly higher mortality rate than the other sections of the urban society. Secondly, the decline was recorded regardless of the dismal state of public health infrastructure, the prevalence of various diseases, and the major health challenges that the city faced.

Nigel Crook and Radhika Ramasubban are 'tempted to argue', that the decline in the mortality rates was largely due to economic growth and stability in the 1930s. They mention that 'a combination of relatively healthy economic growth, sustaining the incomes of the industrial proletariat, and a gradual shift in the social composition with the formation of a burgeoning petty bourgeoisie, may be responsible'.[129] Following the First World War, the city was affected by the Great Depression. A majority of the population suffered during the 1920s as the wages declined. Further, the strike of 1928, which lasted for over six months, had a profound impact on the economic conditions of the industrial labour class. In comparison to the 1920s, the 1930s saw economic revival and was a period of relative stability. This period of economic growth could have had a positive impact on the overall health of Bombay's population in the 1930s.

Another factor could be that the anti-malaria campaigns and programmes for infant welfare initiated by the government agencies and the voluntary organisations helped in reducing the mortality rates for the city. The contribution of the voluntary organisations in the provision of medical relief was crucial, as they worked in close cooperation with the colonial state and the Bombay Municipality. Their work was not only to provide immediate medical relief to the poor in the city, but undertook extensive campaigns to increase awareness about health and sanitation amongst the masses. Even though the voluntary organisations came with their set agendas and biases, they worked on a large scale with the urban poor. Not only did the number of voluntary organisations in the city increase over the

[129] Ramasubban and Crook, 'Spatial Patterns of Health and Mortality', p. 154.

first half of the twentieth century, the nature and scope of the programmes undertaken also expanded immensely. It is also important to consider that there was a slow but gradual increase in the number of people who reported sickness and took professional medical advice over the first half of the twentieth century.[130] While the percentage of people in Bombay, seeking allopathic drug therapy might have been negligible up to independence,[131] one cannot overlook the impact of awareness programmes and professional medical advice in improving the health of the population.

This chapter has suggested that the decline in mortality rates was due to a patchwork of policies implemented by several agencies such as government institutions, voluntary organisations, and private philanthropy. There was no holistic planning undertaken by the colonial state or the Bombay Municipal Corporation in the interwar period. Swapna Banerjee-Guha suggests that the early decades of the twentieth century, 'the pattern of urban development that was fashioned was, to deal with selective problems'.[132] No effort was made to understand the complexity of issues surrounding policy making, urban development and public health. In fact the haphazard development in the early decades of the twentieth century and the dynamics of urban development between 1931 and 1941 was responsible for further segregation on social and spatial-temporal level. This resulted in highlighting the class and caste inequalities existent in the city from the point of view of urban development, quality of life and access to public health infrastructure. The class bias in the urban development process is evident in the 'preferential locations offered to the ruling and native

[130] Ibid., p. 155, citing Radha Kumar, 'City Lives: Women Workers in the Bombay Cotton Textile Industry 1911-47', PhD thesis submitted to Jawaharlal Nehru University, New Delhi in 1993.
[131] Ibid.
[132] Swapna Banerjee-Guha, 'Urban Development Process in Bombay: Planning for Whom?', in Sujata Patel and Alice Thorner (eds.), *Bombay - Metaphor for Modern India* (New Delhi: Oxford University Press, 1995), pp. 100-120 at p. 103.

elites on the western shoreline'[133] and the development of poor localities and industrial labour housing on the eastern side of the city.

During the interwar period, the class and caste bias in the policy making process was reflected in the 'informed ignorance'[134] on the part of the governing agencies in question of health and sanitation in the poor localities, and the manner in which the anti-malaria campaign was undertaken in the city. The class and caste bias continued to be a persistent issue throughout the first half of the twentieth century. This was largely due to a municipal politics that was dominated by the native elites and lack of representation for the lower ranks in the society. Another important issue associated with urban governance was the paucity of funds available for the development of healthcare infrastructure in the city. The two World Wars provided another excuse for the colonial state to refrain from investing in public health and sanitation programmes. Conveniently, the responsibility of providing public health infrastructure was transferred to the Municipality and civil society. The decline in the mortality rates for the city was not due to the efforts of the colonial state or the Bombay Municipal Corporation, but largely due to the efforts undertaken by the citizens of Bombay. The chapters that follow in this thesis will trace out in greater detail the contribution of civil society towards the decline of mortality rates in mid twentieth century Bombay.

[133] Ibid.
[134] *Navakal*, 7 June 1914.

CHAPTER TWO

Bombay and the Influenza Pandemic Of 1918

Chapter One analysed the various trends in health and mortality during the inter-war period. While studying the health and well-being in twentieth century colonial Bombay, one cannot overlook the influenza pandemic of 1918. Influenza, which arrived in the city at the end of the First World War, was responsible for the highest mortality rates in the colonial period. The impact of the pandemic, shaped the discourse of public health and sanitation in the inter-war period. Despite the significance of the event, influenza has received little attention from scholars working in the field of urban health histories. Scholars have largely focussed their attention on the plague epidemic of 1896 and its impact on various aspects of urban governance in Bombay. Therefore, this chapter attempts to highlight Bombay's experience and critically evaluates the mortality trends during the course of the influenza pandemic.

The influenza epidemic of 1918 is considered to be one of the most devastating pandemics in world history and the greatest single demographic disaster of the twentieth century.[1] The death rate was higher than that of the total number of casualties in the Great War. The epidemic started around March 1918 and spread across the globe in three waves: the first wave started in March and April 1918, the second in August 1918 and the third in 1919. It is the second wave that is considered to be the most dangerous. It started in Europe and then rapidly spread through the war zone in Europe, travelled across Asia and North Africa before reaching Australia. The epidemic also severely affected America, where there

[1] David Killingray and Howard Phillips (eds), *The Spanish Influenza Pandemic of 1918-1919: New Perspectives* (London: Routledge, 2003), p. 4.

was a huge loss of human life. The influenza epidemic of 1918 was, with little doubt, a global catastrophe.[2] Though influenza spread across the globe during the time of the First World War I, no evidence is available that directly connects the epidemic with the war. Influenza is not a 'war disease' and it was prevalent more virulently in countries that were far from the war areas than it did in those which were a part of the military actions.[3] However, there is enough evidence that shows that war played a crucial role in the spread of the disease around the globe. One such example, explored in this chapter, is that of the city of Bombay.[4]

It has been observed that the influenza epidemic of 1918 has received little attention from historians and academics in comparison to the other events that were contemporary with it. Some of the major events that were parallel to influenza were the plague, the traumas of the War, revolutions and human displacement. Only from the 1960s onwards has some attention has been given to this epidemic.[5] What is surprising is that the area that suffered the highest mortality of all in 1918 – India – has hardly been examined at all. Between 1918 and 1919, influenza was responsible for a death roll of approximately five million people in British India alone.[6] On the contrary, the death rates recorded for plague in India between 1894 and 1950 are estimated at twelve million.[7] Apart from a few articles written by I. D. Mills in 1986, Mridula Ramanna in 2003 and David Hardiman in 2012, the major writings on public health in India focus on the nineteenth century, stop before the First World War and say very little or nothing about the epidemic. Historians who have worked on the influenza epidemic in the Bombay Presidency make extensive use of the Report of the Sanitary

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[2] David Hardiman, 'The Influenza Epidemic of 1918 and the Adivasis of Western India', *Social History of Medicine*, 25:3 (2012), pp. 644- 45.
[3] A Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, 1919, General Department Compilation, File no. 353, 1918, MSA.
[4] Although Bombay can also mean Bombay Presidency, in this essay my concentration is on the city of Bombay. Therefore, my use of this name refers exclusively to the city, unless otherwise stated.
[5] Hardiman, 'The Influenza Epidemic of 1918 and the Adivasis of Western India', pp. 644- 45.
[6] A Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, 1919, General Department Compilation, File no. 353, 1918, MSA.
[7] Myron Echenberg, *Plague Ports: The Global Urban Impact of Bubonic Plague 1894-1901* (New York: New York University Press, 2010), p. 5.

Commissioner for the Government of Bombay published in 1918. This report is exhaustive and provides detailed information along with statistics on the outbreak and spread of influenza in the Bombay Presidency.[8]

During the first wave of influenza epidemic in India, as in most other countries affected, the disease ran a mild course and the mortality rate was almost insignificant in comparison to the second wave of the epidemic. The second wave saw lethal complications which affected the lungs and respiratory tract. Such complications became widespread and resulted in high mortality rates which in many cases were without parallel. Much like the plague pandemic of 1896, the disease spread at a fast pace across the country and very few sections of the population escaped. Both, towns and villages suffered alike, but, on the whole, the mortality and distress was greater in rural than in urban areas.[9]

This chapter will make four key arguments. It will begin by showing how there was a dispute among the various organs of both the central and local government over how the influenza epidemic entered the city. While the influenza epidemic has been studied through a class dimension, no study has been made to understand the caste dimension. I will show how the caste status of the sufferer was of fundamental importance to the chances of recovery from the disease. I will then analyse the extent to which the colonial state (Government of Bombay) was effective in countering the influenza and the role that the Bombay Municipal Corporation and private philanthropy played in combatting the disaster. I will conclude by showing how, were it not for the contributions of voluntary organizations, the death rate in the city would have been significantly higher.

[8] Historians' use of this report has been commented on by Hardiman, see 'The Influenza Epidemic of 1918 and the Adivasis of Western India', pp. 644- 45.
[9] A Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, 1919, General Department Compilation, File no. 353, 1918, MSA.

Table 2.1: Deaths from influenza in colonial India prior to 30 November 1918.[10]

Province	Population (Census 1911)	Total estimated influenza deaths	Influenza death rate per thousand
Central Provinces and Berar	13,916,308	790,820	56.8
Delhi	416,656	23,175	55.6
Bombay	19,587,383	900,000	45.9
Punjab	19,337,146	816,317	42.2
North West Frontier Province	2,041,077	82,000	40.0
United Province	46,820,506	1,072,671	22.9
Coorg	174,976	3,382	19.0
Madras	40,005,735	509,667	12.7
Assam	6,051,507	69,113	11.4
Bihar and Orissa	34,489,846	359,482	10.3
Burma	9,855,853	60,000	6.0
Bengal	45,329,247	213,098	4.7
Total for British India	238,026,240	4,899,725	20.6

I. THE ARRIVAL OF INFLUENZA IN BOMBAY

The epidemic of 1918 was by no means the city's first experience of influenza. In the years prior to the epidemic of 1918, influenza pandemic had arrived in 1850 and 1890. It appears that in 1890, the disease was popularly known as '*Nava Sardi Bukhar*' - 'a new type of cold and flu' – in the city. Reports indicate that in February and March 1890, the epidemic assumed such grave proportions that the businesses of Bombay were seriously dislocated with many firms and factories paralysed.[11]

[10] Ibid.
[11] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.

In 1896, Bombay port had proved to 'a superb gateway for the plague pathogen, thanks to the railways and shipping lanes that the British established there'.[12] Similarly, influenza first arrived in Bombay in June 1918 through the port which was busy with war shipments of machinery and supplies.[13] Letters exchanged between the Executive Health Office and the Health Officer of Bombay Port indicate a serious difference of opinion over the arrival of influenza into the city of Bombay. Dr Turner, the Executive Health Officer of the city, was of the opinion that the crew ships from the First World War, which were docked at Bombay port were responsible for the introduction of the fever into Bombay towards the end of May. However, the Health Officer of Bombay Port claimed that the crew of the war ship had contracted the fever while berthed in Bombay.[14] Work by Mridula Ramanna on epidemics in colonial India shows that it was common for the colonial authorities to blame the insanitary conditions of Indians as the root cause for any disease that was newly introduced.[15] The colonial state seldom reflected on the failure of the governing bodies in addressing the public health issues and the question of sanitation. Therefore, it is not surprising that the Sanitary Commissioner of Bombay Presidency, Lieutenant-Colonel Hutchinson, believed that influenza was endemic to India.[16]

As early as 1916, Dr Turner, in his note to the Municipal Commissioner of Bombay had anticipated the introduction of any disease from foreign ports to Bombay. He believed that in view of Bombay being a port of arrival and despatch of troops and labour corps to other parts of the world, introduction of a disease was a great possibility. In his report on the

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[12] Echenberg, *Plague Ports*, p. 50.
[13] A Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, 1919, General Department Compilation, File no. 353, 1918, MSA.
[14] Ibid.
[15] Mridula Ramanna, 'Coping with the influenza pandemic: The Bombay Experience', in David Killingray and Howard Phillips (eds), *The Spanish Influenza Pandemic of 1918-1919: New Perspectives* (London: Routledge, 2003), pp. 86-98, at p. 88.
[16] A Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, 1919, General Department Compilation, File no. 353, 1918, MSA.

influenza epidemic to the Municipal Commissioner of Bombay, Dr Turner referred to Bombay as 'the Gate of India' and stated that 'the conditions of war and the facilities for communication between Bombay and Mesopotamia and other overseas areas, and the necessity for the transport of troops and labour corps and refugees render it impossible for Bombay to escape in case an epidemic arises'.[17] Work done by Mills on the influenza epidemic witnessed throughout the Bombay Presidency suggests that it was likely that the epidemic was introduced from outside.[18] Thus, one can confidently discard the claim of the Sanitary Commissioner that the disease was endemic to the country.

After the disease was introduced to Bombay through the port, the conditions that existed in the city were responsible for the rapid spread of the disease and for it to assume epidemic proportions. According to Dr Turner, the city of Bombay during the month of June in 1918 could be compared to a

> huge incubator with suitable media already prepared for the insemination of germs of disease. The temperature moisture and material in suitable conditions, an overcrowded city with a large working class population living in conditions which would lend themselves to rapid spread of disease, either insect borne or from personal contact. The abnormal monsoon conditions and the presence of a dust laden atmosphere and the absence of rain so necessary for the removal of infected material accentuated these conditions.[19]

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[17] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.
[18] I. D. Mills, 'The 1918-1919 Influenza Pandemic: The Indian Experience', *Indian Economic and Social History Review*, 23:1 (1986), pp. 1-40, at p. 2.
[19]Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.

Thus, the disease found a suitable atmosphere for development and spread rapidly in the city amongst the general population from 22 June 1918 onwards. The incubation period, which was between 12 and 24 hours, meant that the influenza assumed epidemic proportions in an extremely short period of time. Prior to the introduction of the influenza epidemic, the city was comparatively free from infectious diseases up until 22 June 1918. The mortality rate was normal for the time of the year and so was the returns of the daily attendance at the Municipal Dispensaries.[20] According to Dr Turner, there was no hint or evidence suggesting that the population of the city was affected by the epidemic. Suddenly, on 24 June 1918, the city of Bombay was in the throes of an epidemic, as can be observed by Table 2.2.

The first intimation received of any unusual sickness in the city was on Saturday, 22 June 1918, when many employees of offices, banks, mills, etc., were absent owing to an attack of fever. The epidemic was confined at first to clerks and office staff, mill hands and other people engaged in indoor occupations.[21] The first cases among the civil population appear to have occurred in the Indian ranks of the City Police. As per the information provided by Dr Arthur Powell, who was the Police Surgeon to Dr Turner, on 10 June a group of seven police sepoys belonging to the 'A' ward were admitted to a hospital suffering from a non-malarial fever. On the following day three more cases were admitted from different parts of 'A' ward. By 19 June, 14 cases were admitted from all over Bombay. After the police, the next group to be attacked by the influenza was employees of Messrs. W. & A. Graham and Co., a well-known shipping firm in Bombay. On 17 June, employees of the Bombay Port Trust and the Hong Kong and Shanghai Banking Corporation succumbed to the epidemic. The next day, the Government Telegraph Department was affected and, on 19 June, the

[20] Circulated to Councillors for consideration with reference to Item no. 48 of the Agenda for the Meeting of the Corporation, 9 July 1918, General Department Compilation, File no. 353, 1918, MSA.

[21] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.

mint. By the next day the disease had spread to the Rachel Sassoon Mill in the 'E'[22] ward and then spread quickly across the city.[23]

Table 2.2: Daily Mortality from 15 June 1918 to 3 July 1918.[24]

Date	Total Mortality
20 June	92
21 June	101
22 June	106
23 June	106
24 June	106
25 June	124
26 June	130
27 June	174
28 June	182
29 June	207
30 June	228
3 July	230

The government authorities and Municipal Corporation were in a state of shock due to the sudden appearance of the epidemic and the disruption of normal life that followed. The Municipal Corporation met immediately and in the discussions carried out by the Medical Relief Committee, two major questions were considered: first, the origin and spread of the disease and second, the establishment of effective coordination between the Executive

[22] The city of Bombay was divided into different wards for administrative convenience. Each ward was named using a letter of the alphabet.
[23] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.
[24] Circulated to Councillors for consideration with reference to Item no. 48 of the Agenda for the Meeting of the Corporation, 9 July 1918, General Department Compilation, File no. 353, 1918, MSA.

Health Officer, Health Office of the Bombay Port and the Health Authorities of the Embarkation Staff and the Brigade.[25] There were serious allegations made by Dr Turner, Executive Health Officer, about the competence of the Health Officer of Bombay Port, Major W. M. Houston, who was subsequently charged for his failure to report the cases to the city's Health Office as a part of the protocol. Dr Turner was of the opinion that had the cases been reported, the damage might have been minimised. Major Houston, in his response to Dr Turner, stated that: 'the diseases notifiable to the Executive Health Officer, under the Port Health Regulations are ten in number, among which sand-fly fever are not included'.[26] As such, he initially believed that the crew was afflicted with sand fly fever and not influenza and so he did not think it was necessary for this to be reported to the Executive Health Officer. However, Dr Turner argued that 'the suspicious cases of infectious diseases coming to the knowledge of the Port Health Officer or the Military Medical Staff should be notified to the Health Department of the City, so that precautions can be taken'.[27]

Two major newspapers in Bombay, the *Bombay Chronicle* and *Times of India* commented critically on this episode of negligence. The *Bombay Chronicle* declared that the city and the entire country had to pay 'dearly' for this neglect, while the *Times of India* criticized the failure of the Health Department to counter the epidemic, despite the huge amount of money spent on it.[28] Concern was also expressed in the Municipal Corporation over the suppression of information concerning the disease among the personnel on military vessels. Lieutenant Colonel Fleming Barnardo, from the Embarkation staff, wrote to the Executive Health Officer, stating that 'I have to request you to take particular care that the names of ships and

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[25] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA. The Brigade was the colonial term for the military component of the embarkation staff.
[26] Major W. M. Houston, Health Officer of the Port of Bombay, to Municipal Commissioner, Municipal Corporation of Bombay, 15 July 1918, General Department Compilation, File No. 353, 1918, MSA.
[27] Ibid.
[28] Ramanna, 'Coping with the influenza pandemic', p. 88.

the dates of sailing and the number of troops carried do not appear in any public report, either in private circulation or otherwise'.[29] Such a censorship would have been imposed for possibly two reasons – either because there was an ongoing war or because the government was not willing to take responsibility of the epidemic.

While the first wave of influenza lasted barely for four weeks, the second wave lasted for nearly three months. The second wave of influenza epidemic arrived in the month of September 1918 after an interval of two months. The report of the Sanitary Commissioner states that the first wave of the epidemic started from the port and later spread to the hinterland. In the case of the second wave, it started in the Deccan and gradually travelled towards the coast. While in other coastal towns and cities, low mortality rates were observed during the second wave of the epidemic; in the city of Bombay, there was a rise in the mortality rates. Some of the prominent reasons for the reduction in mortality rates was the reduction in the temperature and less overcrowding of cities and towns in the coastal areas.

In Bombay, there were 219 deaths registered on 16 September 1918, which marked the beginning of arrival of the second wave. The highest mortality recorded was 768 on 6 October 1918. Out of the 768 deaths registered, 461 (60%) were to respiratory diseases, 161 (20.96%) were due to influenza, and 161 (20.96%) were due to remittent fever. In the two months spanning 10 September to 10 November. The mortality was 20,258 - an average of 326 deaths per day. If the mortality rates had been missing at this level throughout the year the death rate in Bombay would have been 122 per thousand of the census population. There was a total of 20,258 deaths registered in the second wave of influenza. Out of this, 9,752 were females. For every 100 men in the city there were only 53 women according to the census reports. This indicates that the mortality rate was much higher for women than for

[29] Lt- Col. Fleming Barnardo, Embarkation Staff, Bombay, to Dr Turner, Executive Health Officer, Municipal Corporation of Bombay, General Department Compilation, File No. 353, 1918, MSA.

men.[30] While comparing the influenza epidemic with the bubonic plague of 1896, statistical evidence indicates that in the first year of the plague epidemic, the mortality rate was 1,619 per 100,000 for the city of Bombay.[31]

II. PROVISION OF MEDICAL RELIEF: COLLABORATION BETWEEN THE MUNICIPALITY AND VOLUNTARY EFFORTS IN THE CITY

As soon as the epidemic began to spread across Bombay Presidency, the Sanitary Commissioner observed that little could be done on the part of the government to control the spread of the disease. Influenza, according to him, paid no respect for public health laws. The Sanitary Commissioner advised the masses about certain measures they should adopt like isolating the infected persons, open up the ill ventilated houses, sleep in the open air if possible and disinfect the clothes of influenza patients.[32] F. C. Fraser, in the memorandum issued on 19 October 1918, suggested that the patients affected by influenza should take fluids in abundance and rest in bed. He also advised against the use of quinine as a curative measure because it had no effect in reducing the temperature or preventing the fever.[33]

The Government of Bombay also took steps towards identifying the real cause of the influenza epidemic and research was carried out at two laboratories: the Bombay Bacteriological Laboratory in Parel, and the Central Research Institute in Kasauli. The Government not only requested information regarding an influenza vaccine from South Africa, but the government bacteriologists also met informally at Delhi to discuss the same.

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[30]Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.
[31] Echenberg, *Plague Ports*, p. 51.
[32] A Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, 1919, General Department Compilation, File no. 353, 1918, MSA.
[33] F. C. Fraser, Captain, I. M. S., Personal Assistant to the Surgeon General, Government of Bombay, to All Medical Officers in charge of Hospitals and Dispensaries, Bombay Presidency, 19 October 1918, General Department Compilation, File no. 353, 1918, MSA.

After all the medical discussions and information made available, the constituents of the vaccine were decided upon and it was prepared at the Bombay Bacteriological Laboratory, the Central Research Institute in Kasauli, and the King Institute of Preventive Medicine in Madras. The vaccine was then distributed free of charge to the wider population.[34] However, it was only in 1933 that researchers discovered the viruses (influenza virus types A, B, and rarely C) that cause influenza. Prior to 1933, a bacterium named *Haemophilus influenzae* was thought to cause the flu. Few years later, in 1938, two scientists – Jonas Salk and Thomas Francis – developed the first vaccine against flu viruses.

The public was not impressed with the work and relief measures taken up by the Government of Bombay in combating the influenza epidemic. This can be seen in comments in the local press, which was extremely critical of government policies. But, the Government of Bombay stated that they had done everything in their capacity to counter the epidemic. *The Jam - e - Jamshed* voiced its concern about the perceived apathy of the Government and mentioned that the infrastructure put up in the city of Bombay was not adequate for the huge population.[35] A letter written by 'A Seeker after Facts' in the *Times of India* demanded that doctors should organize a conference to discuss and debate on the nature of the fever.[36] The *Bombay Chronicle* stated that higher government officials chose to remain away in the hills, not carrying out their responsibilities 'in the field' where majority of the population was affected.[37] The *Sunday Chronicle* criticized the little work done by the government at the centre and how everything was left to the Bombay Municipal Corporation and private philanthropy.[38] To prove evidence for the same, when Purushotamdas Thakurdas and S. B. Upasani took up the issue to funding the relief measure in the Bombay Legislative Council,

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[34] A Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, 1919, General Department Compilation, File no. 353, 1918, MSA.
[35] *Jam-e-Jamshed*, 5 October 1918.
[36] *Times of India*, 7 October 1918.
[37] *Bombay Chronicle*, 16 October, 1918.
[38] *Sunday Chronicle*, 20 October 1918.

the Government of Bombay maintained that it had limited funds available.[39] It was much later that the Sanitary Commissioner admitted that there was inadequacy of governmental infrastructure to provide immediate relief in the city of Bombay and other parts of the country.[40]

As far as the Bombay Municipality was concerned, accommodation for serious patients was made available in the hospitals run by the Government of Bombay: the Jamsetjee Jeejeebhoy, Goculdas Tejpal and Infectious Diseases hospitals, and at a military camp in the suburb of Dadar.[41] The Medical Relief Committee of the corporation met and, in consultation with the Municipal Commissioner and the Health Officer, decided on the measures to be taken. A sub-committee was appointed to deal with the epidemic. This subcommittee met regularly to carry out a publicity campaign and to bring to the people what the Health Officer considered necessary to prevent or treat and control the disease. The sub-committee consisted of Mr. Rahimtullah Currimbhoy, President of the Corporation, Dr. K. E. Dadachanji, Mr. Cowasji Jehangir and Dr. M. C. Javle and the Municipal Commissioner. This committee made daily visits to all the dispensaries, hospitals and houses and were instrumental in gaining the assistance of the voluntary organizations and bringing the operations to a conclusion.[42] It also brought to the attention of the Controller of Prices the need to reduce the high prices of medicines. Letters were sent to 'large employers of labour' suggesting the steps to be taken, while mill managers were summoned to discuss preventive measures to be adopted in mills.[43] Posters were put up in English, Marathi and Gujarati,

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[39] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.
[40] A Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, 1919, General Department Compilation, File no. 353, 1918, MSA.
[41] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.
[42] Ibid.
[43] Ibid.

advising the people to call in medical help or go to hospitals. Arrangements were made for the distribution of milk and 'pneumonia jackets'.[44] The Municipality by the way of affording additional facilities to the poor in the disposal of their dead suspended burning and burial fees at the Haines Road Cemetery.[45]

The Municipality and various voluntary organizations, opened a number of roadside dispensaries in several wards of the city and supply of free medicine. The temporary or table dispensaries were put up in exposed places in the city, in the localities inhabited by the low-class. In a very short span of time, nearly 100 places in the city were set up where supplies of medicine and milk was available. The Municipality also made arrangements with several milk vendors and owners of milch cattle stables to provide pure milk in specified quantities to those who produced a demand coupon signed by the District Registrars or other authorised personnel to issue such coupons. The entire cost of this facility was borne by the Municipal Corporation. Medical men were put on to visit the poor and treat them in their homes if a patient was unwilling or too ill to go to hospital.[46] When the epidemic showed signs of withdrawal, the temporary dispensaries put up were withdrawn on 1 November 1918 from places where they were no longer required, and planted on the docks and railway stations. These were then finally removed on 5 November 1918.[47]

According to Dr Turner, it was extremely difficult to control the spread of the virus of influenza once it was introduced in the atmosphere. The mortality figures in the city had assumed alarming proportions. As soon as the epidemic set in, Dr Turner appealed to the

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[44] Note: the 'pneumonia jacket' is a jacket made of two pieces of cloth with about an inch-thick layer of cotton between and sewn like a quilt to keep the cotton in position. It is warm to wear and is a substitute for woollen clothing which the poor cannot afford and is intended to prevent chill. It is not buttoned in the middle but is fastened with tags sewn on side.

[45]Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.

[46] Ibid.

[47] Ibid.

public for cooperation. It was felt that the organization of the Health Department meant for normal times and ordinary outbreaks of infectious diseases would not be able to cope with the situation and that measures on a vast scale. Therefore, it was important for the Health Department to seek the cooperation of the masses in dealing effectively with the epidemic.[48] While a lack of infrastructure was one reason, another reason behind engaging the natives could have been the experiences from the bubonic plague epidemic of 1896. The perceived ignorance and superstitious nature of the native population, their social surrounding and ways of life made it difficult for the colonial authorities to check the spread of influenza. Dr Turner pointed out that 'in the west, people would seriously consider the warnings issued on the part of the government and immediately recognize the need of action; on the other hand, in India, it was difficult to convince people for anything that went against their set of beliefs'.[49] This quote suggests that the issue was not about superstition or ignorance but legitimacy of authority. The local voluntary organizations and Western-educated Indians proved extremely useful in addressing the public and creating awareness during the epidemic.

The response of the public to the call of the Executive Health Officer was both, immediate and overwhelming. The municipal authorities worked in coordination with the voluntary organizations and individuals in providing medical relief to the patients across all sections of the society. The task of assisting and coordinating the work of voluntary organizations was given to Dr J. S. Nerurkar, Superintendent of Vaccination.[50] On the other hand, the private medical practitioners advocated sanitary education of the public, since they felt that nothing could be expected of the municipality, and 'their salvation lay in their own hands'.[51]

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[48] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.
[49] Ibid.
[50] Ibid.
[51] Ramanna, 'Coping with the influenza pandemic', p. 92.

Among the numerous voluntary organizations that worked during the epidemic, two institutions played a crucial role: the Hindu Medical Association and the Social Service League. The Hindu Medical Association was the earliest in the field, followed by the Social Service League and the Humanitarian League. Volunteers from these institutions, organized house visits and in case of people suffering from influenza with no one to nurse them, the volunteers would direct them to the hospitals. They also employed their own medical men to supplement the labours of those engaged by the Health Department.[52] Two wards in the Municipal Maratha Hospital were placed under the disposal of the Hindu Medical Association. These wards were under the supervision of Dr Abraham Erulkar. The association also set up a temporary hospital in the Jain Boarding at Elphinstone Road which was managed by Dr G. V. Deshmukh and Dr. D. D. Sathaye. The report on work done by the Hindu Medical Association suggests that most patients were from the lower sections of the society and worked in the mills who were 'ill fed' and lived in 'badly ventilated dark rooms with smoky atmosphere full of coal and dust'.[53] It was found that initially people refused to opt for treatment, and had to be persuaded to avail the treatment at government and municipal hospitals and dispensaries. A total of 4,195 outpatients were treated at various centres set up by the association.[54]

The Social Service League was founded in 1911 by social reformers, N. M. Joshi, N. G. Chandavarkar, Dr B. K. Bhatavdekar, B. N. Motivala and G. K. Parekh. The League's constitution proclaimed its intention to undertake measures for the 'organization of charities and social work'.[55] They incorporated the same with providing medical relief during the

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[52] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.
[53] General Department Compilation, file no. 232, 1919, Report of the Relief Work of the Hindu Medical Association.
[54] Ibid.
[55] Prashant Kidambi, *The Making of an Indian Metropolis- Colonial Governance and Public Culture in Bombay, 1890-1920* (Ashgate, 2012), p. 223.

epidemic. The League set up its own 'Influenza Relief Committee' which was managed by the prominent industrialists, judges and doctors in the city. A fund of Rs. 52, 148 was collected by this committee. The money collected came from institutions like the N. M. Wadia Charities and from individuals as well. There is a record of Rs. 500 donated by Parbhuran Popatram, who was a renowned practitioner of Ayurveda, a traditional medical system in India. Small sums were also given anonymously by donors towards the relief measures organized by the League.[56] A total of 20 medical relief centres were opened by the League across the city. The centres were used to distribute a stock medical mixture, milk and clothing and records show that 17,648 people benefitted from this provision. The League organized a special corps for the cremation of the dead and material associated with funeral was kept at the relief centres. SSL also made for temporary lodging and boarding of patients who were discharged from the hospitals. The *Times of India* wrote an article appreciating the work undertaken by the League during the epidemic in the city of Bombay.[57]

Along with table dispensaries, numerous individuals and community organizations came forward to set up temporary hospitals in the city. The Medical Officer at Adam Wylie Hospital, set apart some beds for the patients of influenza. Temporary hospitals were also set up by number of castes and communities in the city. Nearly 25 organisations provided around 200 volunteers for relief measures during the epidemic of 1918 in Bombay city. Apart from Hindu Medical Association and the Social Service League, other organizations included the Radiant Club, the Students' Brotherhood, the Students' Social Union at Dadar, the Young Men's Hindu Association, the Presidency Students' Federation, Kamgar Hitvardhak

[56] 'Report of the Influenza Epidemic', *The Social Service Quarterly*, 4 (1918), pp. 148-54. Donations were received from Wadia charities, Tata Sons & Co., Richardson & Cruddas, the Cotton Brokers Association, and the Cotton Merchants and Mukadams Association. A young co- worker, B. R. Bhende, described Joshi's tremendous drive in collecting funds and in organising relief in areas where it was most needed.

[57] *Times of India*, 8 October 1918. Tragically, one of the young volunteers, Krishna Natarajan, succumbed to influenza.

Sabha, the St. John Ambulance Association under Captain Nunan, the District Superintendent, and the Divisional Superintendents who lent their divisions for work in hospitals and at temporary dispensaries, some of the Professors and students of Wilson College, students of the Grant Medical College, members of the Church Mission Society and many other citizens of Bombay gave their voluntary services. Several other philanthropic individuals and institutions organized relief according to the needs of the locality and the community they served.[58] We have already looked at the community-based organizations in the section on relevance of caste.

The Western India Turf Club lent its large offices at Club Road as an Intelligence Bureau and gave a generous donation of Rs. 5000 towards relief measures. The Japanese and Shanghai Piece Goods Association operated two relief stations in Bombay. Hundreds of pneumonia jackets and blankets were provided by textile mills and individuals from across the city. Tubes of menthol and cologne water were donated by Messrs Gobhai & Company. Arrangements were made by Mr. C. V. Mehta and Mr. Lakhmidas R. Tairsee for the supply of free fuel or at nominal price at the cemeteries, and by the latter for the supply of funeral materials free at different depots in the city. Funds for funeral materials was generously provided by the Hindu public. Most of these efforts benefitted the lower sections of the society.[59] Measures for the reduction of infant mortality continued even after the epidemic had abated, with the aid of the Bombay Sanitary Association and the Lady Wellingdon Scheme. This organisation, which was concerned with diffusion of knowledge of sanitation, ran a library, a museum and held lectures on hygiene for women.[60] This wide cross-section

[58] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.
[59] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25th November 1918, General Department Compilation, File no. 353, 1918, MSA.
[60] *Times of India*, 17 October 1918.

of volunteers and donors reflected the cosmopolitan character of the city. The *Hindustan* newspaper rightly observed that the principal burden had fallen on the philanthropic sections of the public. In a report submitted by the Dr Turner to the Municipal authorities, he paid tribute to the voluntary agencies and individual volunteers who took so large a part in fighting the epidemic.[61] They not only assisted the sufferers but also restored their confidence.

As the influenza occurred during the First World War, there was an ongoing arrival of wounded military patients arriving home from battles, placing huge pressure on hospital facilities and staff. This created a shortage of physicians, especially in the civilian sector as many had been lost for service with the military.[62] A severe need for medical men was faced in the city of Bombay during the epidemic. In spite of the pressure given the war conditions, the military authorities also rendered much valued assistance to the governing bodies. They lent 12 hospital orderlies and four motor ambulances for the removal of patients to hospitals, and placed 400 beds to the disposal of the general public in the Labour Corps Hospital at Dadar. Through the Barrack Master at Colaba, they also supplied cots to meet the sudden emergency situations.[63]

III. THE RELEVANCE OF CASTE

The information contained in the table also clearly indicates the wide difference in the mortality rate among the upper-caste and lower-caste Hindu population. It can be observed that during the second wave of the epidemic, the mortality rate among the lower-castes Hindus was as high as 61.6 percent while it was only 18.9 percent among the upper caste Hindus. Scholars who have studied the influenza epidemic in Bombay city, tend to overlook the importance of caste in the politics surrounding medical relief infrastructure. They focus

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61 *Hindustan*, 9 October 1918.
62 General Department, File no. 353, 1918, MSA.
63 Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.

solely on what they term the 'lower classes'. The lower classes existed both among the upper-caste and lower-caste Hindu population as well as among other religious communities. A critical enquiry into the work undertaken by the colonial state, Bombay municipality, and the various voluntary and community based organisations, allows us to conclude that the caste status of the sufferer was of fundamental importance in his/her chances of recovery from the disease.

Table 2.3: The incidence of mortality among the various communities.[64]

Communities	Population by the census of 1911	Number of deaths			Percentage of mortality
		Males	Females	Total	
Low caste Hindus	54,235	1,647	1,697	3,344	61. 6
Upper caste Hindus	630,267	6,224	5,735	11,959	18. 9
Mohammadans	179,346	1,873	1,574	3,447	19. 2
Parsees	50,931	198	262	460	9. 0
Jews	6,597	34	64	98	14. 8
Indian Christians	41,273	398	363	761	18. 4
Eurasians	4,188	29	21	50	11. 9
Europeans	11,894	71	28	99	8. 3
Buddhists	578	24	2	26	44.9
Total	979,309	10,498	9,746	20,244	

Research conducted by a number of historians on the late nineteenth- and twentieth-century Bombay suggests that the spatial distribution clearly demonstrates divisions based on class, caste, community and religion.[65] The rise of property rates in the southern part of the city, which in turn forced the industrial working population was to move further north and reside in areas such as Parel, Sewri, Sion, Mahim and Worli.[66] Within the labour population residing in the mill district, there was a clear visible segregation based on the caste

[64] Ibid.
[65] See Ira Klein, 'Urban Development and Death: Bombay City, 1870 – 1914', *Modern Asian Studies*, 20:4 (1986), pp.728-9. Also, Radhika Ramasubban and Nigel Crook, 'Spatial Patterns of Health and Mortality', in Sujata Patel and Alice Thorner (eds), Bombay Metaphor for Modern India (New Delhi: Oxford University Press, 1995), pp. 143-69.
[66]Ramasubban and Crook, 'Spatial Patterns of Health and Mortality', pp. 144-47.

status.[67] Kamathipura, Kumbharwada, Umarkhadi, Tarwadi, Mazagaon, etc. emerged as areas predominantly inhabited by the lower caste communities.[68] According to the death returns from the various wards in the city, the Byculla and Mandvi wards, which contained congested localities like Umarkhadi, Mandvi, Chakla, Kumbharwada, Kamatipura and Mazagaon, were the most affected by the epidemic.[69]

The Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, published in 1919 includes a map of various medical relief infrastructure set up in the city to counter the epidemic. Careful analysis of the map shows that medical relief infrastructure was concentrated in the upper caste localities of the city – Chaupatty, Malabar Hill, Bhuleshwar, Tardeo, etc. By contract, areas such as Byculla, Mandvi, Chakla, Umarkhadi, Kumbharwada, Kamathipura and Mazagaon, recorded some of the highest mortality rates and faced severe shortage of medical relief infrastructure, considering the population density in these areas. Only the Municipality and the Social Service League took initiatives in setting up medical relief infrastructure in areas dominated by both the lower class and caste population. As far as the various community organizations are concerned, such as the Dawoodi Bohra Volunteers, the Ismaili Khoja Fever Relief Dispensary, the Cutchhi Lohanas, the Bhatia Volunteer Corps, the Kshatriya Bhandari Dnyati Samaj, the Gaud Saraswat Brahmin Mitra Mandal, only one was a low-caste organization – the Kitte Bhandari Aikyawardhak Mandali.[70] Most of the community based organizations catered to the upper caste communities and medical relief provided by such organisations was restricted to members of their community. Thus, the lower caste

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[67] Neera Adarkar, 'Gendering of the Culture of Building: Case of Mumbai', *Economic and Political Weekly*, 38:43 (2003), pp. 2527-34.
[68] G R Pradhan, *Untouchable Workers of Bombay City* (Bombay: Karnatak Publishing House, 1938), pp. 6-7.
[69] *Times of India*, 7 October 1918
[70] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.

communities faced further restrictions in accessing medical relief during the influenza epidemic of 1918.

In addition, a number of communities also opened temporary hospitals in different parts of the city – the Lohanas at Mazagaon; Borhas at Null Bazaar; Pathare Prabhus at Chaupati; Parsis at the Parsi Fever Hospital; the Bomanji Petit General Hospital at Cumballa Hill; and a ward of twenty beds also being set apart for Parsi patients at the Arthur Road Hospital; Jains at Hirabag in Girgaum and the Marwaris at Kalbadevi.[71] Here again we do not find mention of any low-caste community being able to set up temporary hospitals for the patients of influenza. They had to entirely rely on the government and municipal hospitals in the city, and the public health infrastructure in the early decades of the twentieth century was largely inadequate for the size and population of the city. In 1918, only 0.5 beds per 1000 people were available in the city for the general population. And when compared with the other leading cities in the country, Bombay had the lowest ratio.[72]

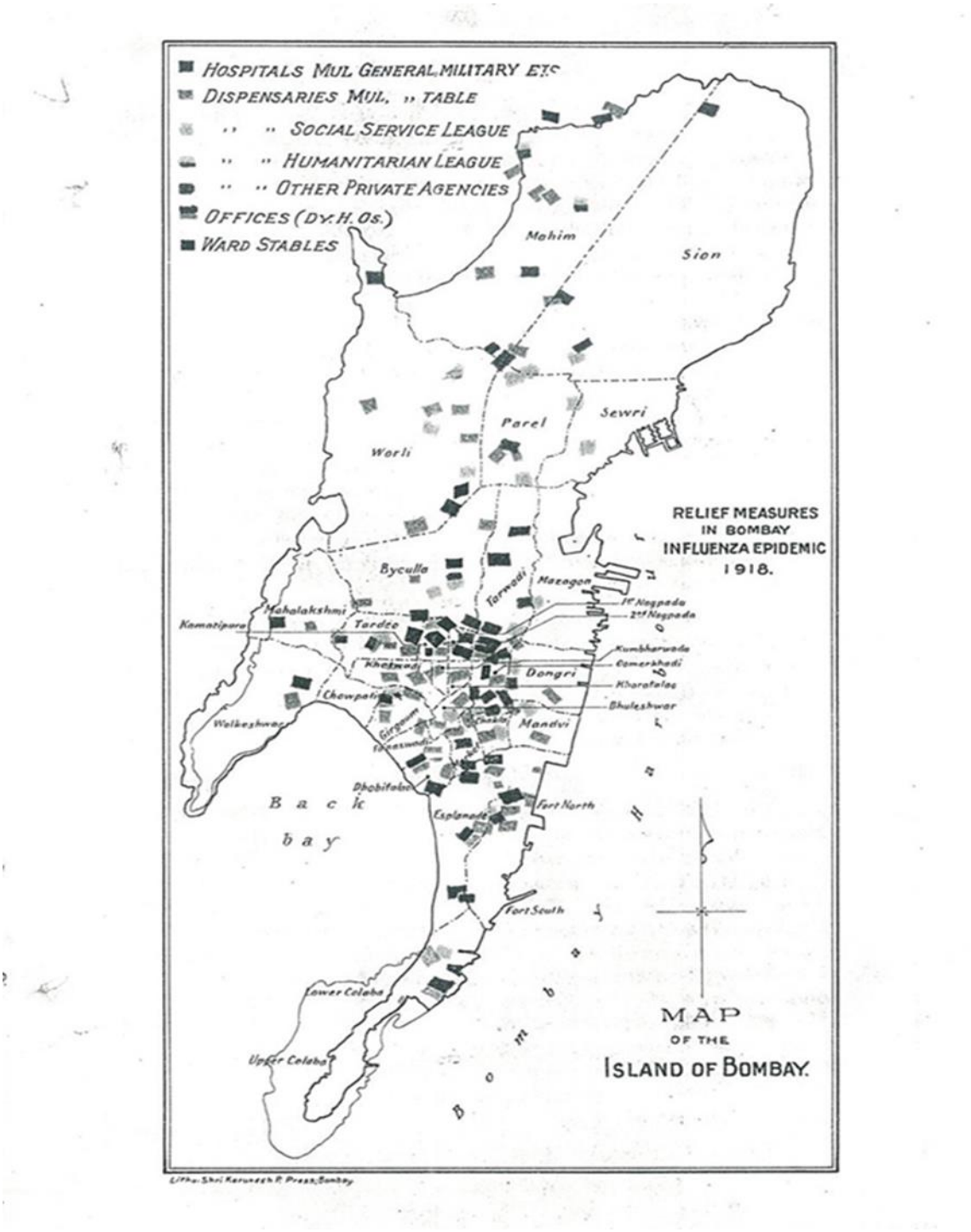
Table 2.4: The total number of beds available per 1000 of the population.[73]

CITY	NO. OF BEDS PER 1000
Lahore	7.2
Madras	3.4
Calcutta	2.6
Bombay	0.5

[71] *Ibid.* The Gujarati speaking Lohanas, the Bhatias and the Marwaris from Rajasthan were the trading and commercial castes, the Marathi speaking Gaud Saraswat Brahmins and the Pathare Prabhus were traditionally the literate castes, while the Kshatriya Bhandaris are regarded as the upper caste, the Kitte Bhandaris are the lower caste. The Bhandaris are traditionally associated with the liquor industry. While all of these were Hindus, the Bohras and the Khojas, also commercial communities, were Islamic.
[72] Statement showing the existing and projected hospital accommodation in the city of Bombay, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
[73] Ibid.

Thus, a careful analysis of the various medical relief measures implemented in the city and the existing public health infrastructure, helps in understanding why the lower-caste communities suffered significantly more than the upper-caste population. While the public health infrastructure available to the general population was grossly inadequate, the medical relief provided by various voluntary and community based organisation also saw further divisions based on class, caste and community.

Figure 4: Map of hospitals and dispensaries set up as a part of relief measures in Bombay City during the Influenza Epidemic of 1918.[74]



[74] A Preliminary Report on the Influenza Pandemic of 1918 in India by the Sanitary Commissioner with the Government of India, 1919, General Department Compilation, File no. 353, 1918, MSA.

IV. AN ANALYSIS OF THE INFLUENZA EPIDEMIC OF 1918

The epidemic of influenza, which appeared silently, lead to serious dislocation of trade and family life, and high mortality amongst those of low vitality, and is an example of how readily colonial Bombay could become infected with much more serious tropical diseases if the early cases were not recognized and dealt with. In a short period, the epidemic of influenza cost the city of Bombay thousands of lives, at least a million working days, an incalculable amount of discomfort, expense and inconvenience.

The state's response to the epidemic was inadequate. They only suggested measures and did not implement any policies or relief measures in specific to the epidemic. If not for the cooperation between the municipal government and the voluntary organizations like the Social Service League, Hindu Medical Association, etc., in the city of Bombay, the situation would have been much worse. This cooperation allowed for quick implementation of preventive and relief measures in the city. These measures proved extremely beneficial considering the crowded localities of Bombay city. The public came out in full support as volunteers and therefore it became easier to render help. It is important to point out that if it was not for the cooperation between the social organizations and the municipal authorities, the lower sections of the society would have suffered even more.

Less than two decades after the plague epidemic of 1896, influenza entered the city of Bombay and caused far more damage. Therefore, it becomes imperative to evaluate the public health policy post 1896 and the one following influenza of 1918. Prashant Kidambi has shown how the colonial government embarked on a programme of 'civic renewal' following the epidemic of 1896. The Bombay Improvement Trust was set up in 1898 and it was given the task of 'urban reconstruction' and aimed at reorganizing the landscape of the 'city's poorer districts based on sanitary principles'. There was strong belief within the colonial government that the plague was a direct result of insanitary conditions in densely

populated localities. As Kidambi argues, 'disinfection, demolition of insanitary dwellings and temporary evacuation of plague affected dwellings under the provisions of the Epidemic Diseases Act continued to be the mainstay of the colonial state's anti-plague campaign in Bombay well into the first decade of the twentieth century'.[75] Furthermore, other historians who have worked on the Bombay Improvement Trust have concluded that it was a complete failure. It did not bring about any significant changes in the sanitary conditions of the city and therefore, when influenza was introduced into the atmosphere, it took very little time to assume epidemic proportions.

No policy change was triggered by the influenza epidemic of 1918. However, the event did create awareness about the defects in Bombay's sanitary system and insufficient medical relief infrastructure for a city like Bombay with a growing population. Hospital accommodation in Bombay city was inadequate even to meet the requirements of the population during periods free from epidemics.[76] Suggestions made by voluntary organizations,[77] and medical men in the city,[78] included not only the establishment of more dispensaries and hospitals, but also the making of these provisions more attractive to the lower sections of the society. A dearth of medical men was also keenly felt during the influenza epidemic. It is important to note that there was only one medical college in the Presidency during the epidemic of 1918, and the need for more medical colleges to be established was dearly felt. More colleges would have ensured a greater supply of medical men and of better quality.[79] In the case of sanitation, improvements in the drainage network,

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[75] Kidambi, *The Making of an Indian Metropolis*, p. 68
[76] Note by Abraham S. Erulkar, M. D., on the influenza in Bombay, General Department Compilation, File no. 353, 1918, MSA.
[77] *Social Service Quarterly*, 1918, p. 127.
[78]Note by Abraham S. Erulkar, M. D., on the influenza in Bombay, General Department Compilation, File no. 353, 1918, MSA.
[79] Ibid.

water supply, the unhygienic living conditions and overcrowded localities in Bombay city, was crucial to the reduction in the incidence and virulence of epidemic diseases.[80]

The public pressure exerted by the voluntary organizations and the local press helped to get the Municipal government to work during and after the epidemic. An important case study in this regard is that of the Arthur Road Hospital. Prior to the epidemic, proposals were put before the Corporation for many years for improving the Arthur Road Hospital. However, the work on improvising the available infrastructure at the Arthur Road Hospital was only sanctioned after the epidemic of 1918. Almost yearly after the hospital was established, infectious diseases occurred in more or less serious forms and it had been the scene of an enormous amount of work. Its defects were constantly pointed out, but owing to the sudden and unexpected demands made upon the staff and accommodation, the defects showed themselves more acutely at the time of the influenza epidemic. Following the epidemic, the Medical Relief Committee of the Bombay Municipal Corporation took note of the conditions and plans are being made for a complete institution based on modern and satisfactory lines.[81] As far as the question of inclusion of influenza on the list of the notifiable disease under the Indian Ports act was concerned, it was done following the epidemic in 1918.[82]

As noted in the Introduction, many historians are of the opinion that the influenza epidemic did not receive attention across the globe even when it was the single largest demographic disaster of the twentieth century. Many studies instead focus on the First World War and its aftermath. In the case of India here, there is an additional reason why the influenza epidemic was overlooked: the arrival of Gandhi on the national political level

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[80] Ibid.
[81] Accompaniment to the December Agenda of the Corporation, Dr Turner, Executive Health Office, Bombay City, to Municipal Commissioner, Municipal Corporation of Bombay, 25 November 1918, General Department Compilation, File no. 353, 1918, MSA.
[82] Ramanna, 'Coping with the influenza pandemic', pp. 96-8.

following the Jallianwala Bagh massacre.[83] The attention of the government was focussed on Gandhi's moves rather than concentrating on the medical relief measures. Gandhi's Young India had an editorial titled 'Public Health', which was written after the massacre at Jallianwala Bagh; this article asked the government if it realised the astounding psychological implications of the epidemic. In response to the Jallianwala Bagh episode, the mood on the streets of Bombay was that a government that had watched nearly 6 million people die of the epidemic 'like rats without succour' would not care if a few more died by shooting. This statement clearly expresses the mood of the country at that point in history.[84]

With a serious outbreak of Influenza in England in 1927, there is evidence of a letter written by Rahimtoola Chinoy, the President of Municipal Corporation of Bombay, to the Secretary to the Government of Bombay to inform the Corporation if any precautionary steps need to be taken to prevent the re-entry of the disease into the city through the port. This also shows that the loss incurred in terms of human population and money during the influenza epidemic of 1918 had shaken the Municipal Corporation of Bombay. They wanted to take every step possible to avoid the re-entry of the epidemic into the city. This is also indicative of the strong psychological effects of the influenza epidemic of 1918 left on the minds of the citizens of Bombay city.[85]

[83] Ibid.
[84] Ibid.
[85] President, Municipal Corporation of Bombay, to Secretary, Government of Bombay, 14 February 1927, General Department Compilation, File no. 1748, 1922, MSA.

CHAPTER THREE

Development of Public Health Infrastructure in Inter-War Bombay

The arrival of the influenza pandemic and the end of the First World War had a definite impact on the policies associated with public health infrastructure in the inter-war period. In this chapter, I will evaluate the impact of the Government of India Act of 1919 on the process of policy making related to public health in the city of Bombay. I will analyse the extent to which the colonial government interfered with policy making and the impact it had on the city's medical relief infrastructure. At the turn of the 20th century, the Indian subcontinent witnessed the emergence of radical nationalism and the struggle for political authority. As Thomas Metcalf describes it, 'even before the rise of Gandhi, Indian nationalists, in the streets as well as the legislative arena, had forcefully challenged British predominance – from Tilak's "*swaraj*" campaign, to the struggle against the 1905 Bengal partition, to Annie Beasant's Home Rule movement'.[1]

The First World War and the immediate post-war years witnessed truly dramatic changes in Indian public life. One of the crucial landmarks during this period was a series of constitutional reforms initiated by the colonial government in response to rising discontent among the masses.[2] The rising nationalist movement forced the colonial authorities to reconsider, again in Metcalf's words, the 'fundamental nature and objectives' of their rule in

[1] Thomas Metcalf, *Ideologies of the Raj- The New Cambridge History of India* (Cambridge: Cambridge University Press, 1995), p. 222.
[2] Sumit Sarkar, *Modern India 1885- 1947* (Delhi: Macmillan India, 1983), p. 165.

India.[3] Due to these reasons, there were numerous legislative and constitutional concessions passed by the imperial rulers under the leadership of the new Secretary of State for India, Sir Edwin Montagu (1917 – 1922).[4] In a speech to the House of Commons in 1918, Montagu stated that the policy of the British government towards India should be the one of 'increasing associations of Indians in every branch of the administration, with a view to the progressive realization of responsible government in India as an integral part of the empire'.[5]

Following the end of the First World War, with a view to limiting the growing discontent amongst the masses, the colonial state passed the Government of India Act in 1919. The Montagu-Chelmsford Report (1918), which had made a series of recommendations relating to the governance of India, became the basis for this Act.[6] The report suggested that the concept of 'dyarchy' should be introduced in the Indian subcontinent, which meant that the government would work at two levels: a central level and a provincial level. The Government of India Act of 1919 transferred what were seen as less important portfolios such as agriculture, health, education, etc., to the provincial legislative bodies and held back more critical portfolios such as finance, home affairs, revenue, and defence as 'imperial' subjects.[7] At the provincial level, there was a further division of matters. Water supply, revenue, land acquisition, police, prisons, ports, and minerals were identified as 'reserved' subjects and portfolios like public health, education, pilgrimages, cooperative societies, agriculture, etc., were labelled as 'transferred' subjects.[8] Transferred subjects were to be administered by elected Indian officials.[9] Thus, the Government of India Act of 1919

[3] Metcalf, *Ideologies of the Raj*, p. 225.
[4] Sarkar, *Modern India*, p. 165.
[5] Metcalf, *Ideologies of the Raj*, p. 225.
[6] Sarkar, *Modern India*, p. 165.
[7] Stephen Legg, 'Dyarchy- Democracy, Autocracy, and the Scalar Sovereignty of Interwar India', *Comparative Studies of South Asia, Africa and the Middle East*, 36:1 (2016), p. 45.
[8] Ibid.
[9] Ibid.

allowed a higher number of elected Indians to represent the masses at the district and municipal level.[10]

While evaluating the impact of the Government of India Act of 1919 here, I will suggest three key arguments. First, that the Bombay Municipal Corporation was overburdened with responsibilities relating to the expansion, operation, and maintenance of health infrastructure in the city, even prior to the passing of the Act. While the Government of Bombay continued their financial support towards various public health institutions, the money that was invested was inadequate to the growing demands of such a large city. A second argument is that rather than having one elaborate medical infrastructure policy in the city, there was a patchwork of various initiatives taken by the Government of Bombay, the Municipal Corporation of Bombay, and private philanthropy. More importantly, this period signified the realization that public involvement in civic affairs could lead to better results in tackling issues such as sanitation and public health. My third major argument is that the ongoing Indian national movement and the emergence of Mahatma Gandhi as a mass leader had a significant impact on the development of medical infrastructure in the city during the inter-war period.

I. HISTORICAL BACKGROUND: THE POLICE CHARGES ACT OF 1907

Prior to 1907, the only public hospitals that existed in the city were the Jamsetjee Jeejeebhoy Hospital (henceforth J. J. Hospital), the St. George Hospital, the Bai Motlibai Petit Hospital, the Gokuldas Tejpal Hospital, the Cama and Albless Hospital, and the Jaffer Suleman Dispensary.[11] All the above mentioned hospitals were maintained by the Government of Bombay, which bore the entire cost of their operation and maintenance, with an exception

[10] Metcalf, *Ideologies of the Raj*, p. 225.
[11] Recorded by the Medical Relief Committee, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.

of a contribution of Rs. 36,000 made by the Municipal Corporation of Bombay towards the Gokuldas Tejpal Hospital.[12] The total expense to the Government of the public medical institutions in the city of Bombay was Rs. 371,000 per annum in 1907.[13]

Certain reforms enacted in 1907 marked a significant change in the public policy related to health care infrastructure in the city of Bombay. That year, an agreement was reached between the Government of Bombay and the Municipal Corporation, which culminated into the Police Charges Act, and this was then included in the City of Bombay Municipal Act (Bombay III of 1888).[14] According to this Act, the duty of establishing and maintaining public hospitals and dispensaries and carrying out other measures necessary for public medical relief was laid upon the Corporation under section 61(gg) of the Act.[15] In return, the government took it upon themselves to take care of the entire police department and also agreed to control and to maintain the aforementioned hospitals in their existing condition, in return for an annual payment of Rs. 414,500 by the Municipality.[16] Earlier, the entire cost of policing in Bombay had been borne by the Bombay Municipal Corporation (henceforth BMC), while responsibility for medical relief rested with the colonial government.[17] Thus, even before the Government of India Act of 1919, the responsibility of catering to the public health demands of Bombay had been conveniently transferred by the colonial state onto the BMC. The Police Charges Act of 1907 clearly indicates that the colonial state was unwilling to shoulder the responsibility of developing an adequate healthcare infrastructure for the city.

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[12] Ibid.
[13] Ibid.
[14] File No. 1856, 1923, General Department Compilation, MSA. Also see, Bombay Act No. III of 1888: The City of Bombay Municipal Act 1888.
[15] Recorded by the Medical Relief Committee, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
[16] Ibid.
[17] Bombay Act No. III of 1888: The City of Bombay Municipal Act 1888.

II. A SCHEME FOR EXPANDING MEDICAL CARE INFRASTRUCTURE AFTER THE FIRST WORLD WAR

In the years following the First World War, there was a rapid increase in the population of the city; it almost doubled in the period between 1911 and 1951.[18] As the city grew, it was faced with numerous new health challenges and its existing health infrastructure proved to be inadequate. However, the years between 1914 and 1919, did not allow for any major developments in the field of medical relief as a result of the paucity of funds due to the ongoing First World War.[19] Furthermore, Bombay city was hit by a major influenza epidemic in 1918. The mortality figures recorded during the epidemic had once again made clear, to the government authorities and to the masses, the lack of medical relief infrastructure in the city.

In 1919, immediately after the arrival of the epidemic, Colonel J. B. Smith, Acting Surgeon General with the Government of Bombay, submitted a scheme for the amalgamation of all the Bombay hospitals and their location on a new site to be obtained by reclaiming the foreshore opposite the Hornby Vellard.[20] This scheme, which he proposed in December 1919, was not adopted by the government and the report was filed.[21] However, soon after, the government appointed a strong committee to conduct a study into two important and related issues: the existing hospital accommodation and the plan for hospital reorganization in the city.[22]

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[18] Doughlas Haynes and Nikhil Rao, 'Beyond the Colonial City: Re-Evaluating the Urban History of India, ca. 1920–1970', *South Asia: Journal of South Asian Studies,* 36:3 (2013), pp. 317-335, at p. 324.
[19] Letter No 1856- B, from the Secretary to the Government of Bombay to the President of Bombay Municipal Corporation, General Department Compilation, File No. 1856 Pt. I, 1922, MSA.
[20] Recorded by the Medical Relief Committee, File No. 1856 Pt. II, 1923, General Department Compilation, MSA.
[21] Ibid.
[22] Ibid.

The committee identified a severe inadequacy of hospital facilities in Bombay city in comparison to the size of the population. The colonial state carried out a survey of hospital accommodation in the city, recording the number of beds at the disposal of the public.[23] The result was alarming, and indicated that there were only 0.5 beds available per 1,000 population. A total of only 526 beds were available in the city for the treatment of general diseases, i.e. excluding maternity hospitals, a few beds in private hospitals, and various infectious diseases hospitals.[24] However, it is important to note that there existed adequate hospital accommodation for certain sections and communities, notably Europeans, Anglo Indians, Parsees, Indian troops, Bombay police, railway employees, and prisoners. It was the need of the remaining population (which totalled to around 1,079,562 according to the census of 1921) that had to be considered by the governing bodies in the city.[25] The committee then made a comparative study with other leading cities of India and it was found that the number of beds per 1,000 of the population was as follows:[26]

Table 3.1: Cities in colonial India and number of hospital beds per 1000.

CITY	NO. OF BEDS PER 1000
Lahore	7.2
Madras	3.4
Calcutta	2.6
Bombay	0.5

In order to substantiate the extent to which the hospital accommodation was inadequate, it is necessary to consider the rapid increase in the population of the city over the first few decades of the twentieth century and its anticipated increase in the future.

[23] Report of the Medical Relief Committee, Part I, 12th September 1924, File No. 1856 Pt. II, 1923, General Department Compilation, MSA.
[24] Ibid.
[25] Statement showing the existing and projected hospital accommodation in the city of Bombay, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
[26] Ibid.

Table 3.2: Census figures for 1901, 1911, 1921 and estimated population for 1931.[27]

CENSUS	TOTAL POPULATION OF BOMBAY CITY
Census of 1901	776,006
Census of 1911	9,799,445
Census of 1921	1,175,914
Estimated population of 1931	1,372,383

The results of the survey carried out by the Government of Bombay established that the medical relief infrastructure provided in the city of Bombay was far below the minimum of what was required. Throughout the presidency, Bombay city had the lowest number of beds per 1,000 population. In order to address this issue, the government wrote to the BMC seeking cooperation to increase healthcare infrastructure and the Municipality willingly extended its support towards the scheme.[28] The proposed scheme was estimated at costing over Rs. 20,000,000/- and it would only have been possible to find such a large sum of money with the support of the BMC as well as philanthropic and industrial magnates in the city.[29] As noted above, according to the Police Charges Act of 1907, the responsibility of providing additional hospital accommodation rested on the municipality. However, the Government of Bombay was ready to bear some share of the total cost. Colonial archival documents state that the government was keen to increase the hospital accommodation to what was needed. Considering that the plans for expansion of healthcare infrastructure were initiated immediately after the end of the war and the influenza pandemic, questions can be raised on the 'genuine enthusiasm' of the colonial state, as expressed in these documents.

[27] Statement showing the existing and projected hospital accommodation in the city of Bombay, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
[28] Report of the Medical Relief Committee, Part I, 12 September 1924, File No. 1856 Pt. II, 1923, General Department Compilation, MSA.
[29] Press Note dated the 8 October 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.

III. LESLIE WILSON'S INITIATIVE

In 1923, Sir Leslie Wilson was appointed governor of the Bombay Presidency.[30] He believed that the question of health infrastructure in Bombay was an urgent one that had been ignored for a very long time due to financial constraints.[31] He also pointed out to the poor conditions in many existing in the government hospitals, especially at the J. J. Hospital and added that the lack of adequate medical infrastructure in the city was a major disadvantage for the general population of Bombay.[32] Therefore, the expansion of medical relief infrastructure in the city was among his top priorities as governor.[33]

To address the problem of inadequate health infrastructure in the city, Wilson organized a meeting between the representatives of the Government and the representatives of the BMC on 24 January 1924.[34] The members who participated in the meeting on behalf of the BMC[35] were H. P. Mody, Dr K. E. Dadachanji, Dr Nadirshaw H. E. Sukhia, Dr G. V. Deshmukh, Joseph Baptista and Mirza Ali Mohammed Khan.[36] Mody, the president of the BMC, agreed with Wilson on the necessity to improve facilities for medical relief and medical training in Bombay city. However, he pointed out that the funds available with the Municipality were limited and that their liabilities were heavy; also that there were other important matters arising out of the Police Charges Act of 1907 that required settlement with the Government.[37] In spite of the financial burden on the municipality, all the members at

30 *Times of India*, 11 December 1923.
31 Report of the Medical Relief Committee, Part I, 12 September 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
32 Ibid.
33 Ibid.
34 *Times of India*, 24 January 1924.
35 BMC- abbreviation for Bombay Municipal Corporation.
36 Letter No. 9405 from the President of Municipal Corporation of Bombay, H. P. Mody to the Secretary to the Government of Bombay, 10 January 1924, File No. 1856 Pt. V, 1927, General Department Compilation, MSA.
37 Recorded by the Medical Relief Committee, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.

the meeting felt that it was essential to formulate an effective policy for the expansion of health care infrastructure in the city.[38]

They formed a special committee with representatives of the Government and the municipality. The three representatives appointed by the Municipality were Mody, Dadachanji and Deshmukh. On behalf of the Government of Bombay, the representatives were B. V. Jadhav, P. R. Cadell and the Surgeon General with the Government of Bombay were appointed as representatives.[39] This committee investigated the question of medical relief infrastructure and teaching in the city of Bombay, with a particular focus on the expansion of facilities at the J. J. Hospital and at Grant Medical College.[40] Within the committee, there emerged two main schools of thought regarding hospital expansion for the city of Bombay.[41] The first school of thought was that hospital accommodation should be concentrated in one area. This proposal involved building hospital accommodation for the city of Bombay on a new site – for example at, Hornby Vellard – and to abandon both the J. J. Group and St. George Hospital. This plan had the advantage of making specialists and special apparatus and equipment available for all at one location.[42] The second school of thought was to build many medium sized hospitals throughout the city, widely separated to meet the demands from individual communities.[43]

In order to gather the opinion of experts in the field of health and medicine, the committee prepared a questionnaire and forwarded it together with a statement of present and projected accommodation to about 150 prominent medical men, public associations and

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38 Ibid.
39 Report of the Medical Relief Committee, Part I, 12 September 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
40 Ibid.
41 Notes with reference to Medical Relief and Teaching in the City of Bombay, File No. 1856 Pt. V, 1927, General Department Compilation, MSA.
42 Ibid.
43 Ibid.

bodies in this city.[44] The respondents agreed that it was necessary to increase the total number of hospital beds according to the needs of the growing population. They also called for the expansion of existing facilities at the J. J. Hospital. Despite being the most important medical centre in the city, its facilities available were largely inadequate. Another suggestion was for more specialized hospitals in the city catering to diseases such as tuberculosis, venereal diseases, etc., which were on the rise in early twentieth-century Bombay city. The administration of the hospitals in the city was another important concern among the respondents. A majority of them were in favour of a Central Board for the medical institutions in Bombay.[45] The respondents also observed a lack of coordination and uniformity in the management of existing medical relief infrastructure and that different medical relief institutions in the city worked on different lines depending on the source of funding. Some hospitals were maintained by the Government, others by the BMC, and a few specialist institutions run by private institutions and aided by grants.[46] For both administrative and financial reasons, a Central Hospital Board was considered desirable.[47]

The Medical Relief Committee decided to look at the medical system in the United Kingdom for possible solutions to the problems of inadequate medical infrastructure and paucity of funds.[48] In the United Kingdom, hospitals were mainly supported and managed through voluntary effort. Poor Law Infirmaries, sanatoria and mental and special hospitals were provided out of public funds, in the main by rates levied through the local bodies on the ratepayers of the areas concerned.[49] The existing voluntary system in the United Kingdom was possible because the population was, by and large, willing to subscribe to various

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[44] Report of the Medical Relief Committee, Part II, 12 September 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
[45] Ibid.
[46] Ibid.
[47] Ibid.
[48] Ibid.
[49] L. Twining, 'Poor Law Infirmaries and Their Needs', *The National Review*, 13:77 (1889), pp. 630-642.

charitable efforts.[50] In the early twentieth century, a Liberal government in the United Kingdom laid the foundations for contemporary social services. They passed a number of acts outside the Poor Law, one of the most important among the many was the National Insurance Act of 1911 which covered medical care and unemployment.[51] In many other cases there were regular payments, made from deduction from weekly wages, by the working classes, as an 'Insurance Fund' against sickness, which were in turn supplemented by proportional payments from employers.[52] The members of the Medical Relief Committee in Bombay thought that a similar system like the Insurance Fund could be implemented for the mill industry of Bombay.[53] However, it is important to note that even in the United Kingdom, the system was only maintained by the most strenuous labour and the devoted voluntary service of a minority group within society.[54] In spite of such services, there was a substantial inadequacy in the provision of medical relief and it was observed that there was a rising demand for the provision of medical relief for all who needed it, at the public expense.[55]

After much deliberation on the issue, in a press note dated 8 October 1924, the committee pointed out that it was crucial to double the existing hospital accommodation in the city in order to meet the demands of the growing population.[56] They called for an increase in hospital accommodation in the city by 2,000 beds.[57] Such an extensive project would have created a heavy strain on the public funds, and neither the colonial state nor the BMC were in a position to fund such an ambitious project. Thus, the authorities decided to make an

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[50] Ibid, p. 641.
[51] The National Archives – National Health Insurance Act 1911 http://www.nationalarchives.gov.uk/cabinetpapers/themes/national-health-insurance.htm (Accessed 30 April 2019)
[52] Report of the Medical Relief Committee, Part II, 12 September 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
[53] Ibid.
[54] Twining, 'Poor Law Infirmaries and Their Needs', pp. 630-42.
[55] Ibid.
[56] Press Note, 8 October 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
[57] Ibid.

appeal to private charity for funds.[58] The committee also decided to organize annual events to raise funds for the expansion of medical infrastructure in the city. This idea was also borrowed from other countries across the globe, and in particular the United Kingdom.[59]

While reviewing the contribution of private philanthropy towards provision of medical relief in the city, the committee commented that 'little or no charitable effort present in the city of Bombay, with an exception of a few medical institutions founded by some individuals' philanthropic efforts'.[60] The committee believed that it was only the colonial state and the BMC that had provided medical relief in the city. Further, they identified two important reasons for the lack of charitable effort in the city. One was that they believed a general unwillingness existed on the part of the public to contribute towards medical relief infrastructure.[61] The other reason was that it was considered unnecessary for the citizens to subscribe to help the government agencies to provide medical infrastructure in the city, largely due to the fact that the public had only an indirect voice in the management of health care infrastructure.[62]

The argument put forth by the committee regarding the role of private philanthropy is open to debate. In her book, *Joint Enterprises: Indian Elites and the Making of British Bombay* (2011), Preeti Chopra argues that native traditions of charity were 'long standing' and 'complex'.[63] Indian elite society was used to the idea of charity, but what was new 'was the partnership with government as mode, the new secular institutions as objects, and the restriction of charity to those who "help themselves" as a guiding ethic that were new'.[64] The

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58 Ibid.
59 Ibid.
60 Report of the Medical Relief Committee, Part II, 12th September 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
61 Ibid.
62 Ibid.
63 Preeti Chopra, *Joint Enterprise: Indian Elites and the Making of British Bombay*, (Minnesota: University of Minnesota Press, 2011), p. 11.
64 Ibid., p. 117.

colonial state worked to implement a British way of exhibiting charity in the subcontinent.[65] The elite native population was encouraged to 'pay for projects the British government thought useful such as wells, charitable dispensaries, hospitals, education institutions, and so on'.[66] A detailed study of the public health infrastructure in the city of Bombay shows that from the second half of the 19th century, private philanthropy created a 'joint public realm of Bombay in which public institutions such as hospitals and dispensaries were established.[67] Though this joint public realm was divided on the basis of caste, class, race and religion,[68] it cannot be overlooked that the elite sections of the population did contribute towards medical relief in the city.

Meanwhile, the Medical Relief Committee decided that the total expenditure involved was to be equally divided between the Government of Bombay and the BMC.[69] Further, for every rupee contribute by the public which was allocated to the colonial state for construction of the hospitals under their control, the Government would give another rupee; similarly for every rupee contributed by the public for the construction of hospitals under Municipal control, the BMC would give another rupee.[70] This meant that 50 percent of the funds were to be provided by the public. While the colonial state and the municipal government would contribute 25 percent each. Through the implementation of this plan, the Medical Relief Committee attempted to resolve two problems: first, the issue of finance and, second, the involvement of private charitable effort in the development of public health infrastructure in the city.[71] However, the major responsibility of financing public health institutions had been transferred to the citizens of Bombay. The plan was immediately

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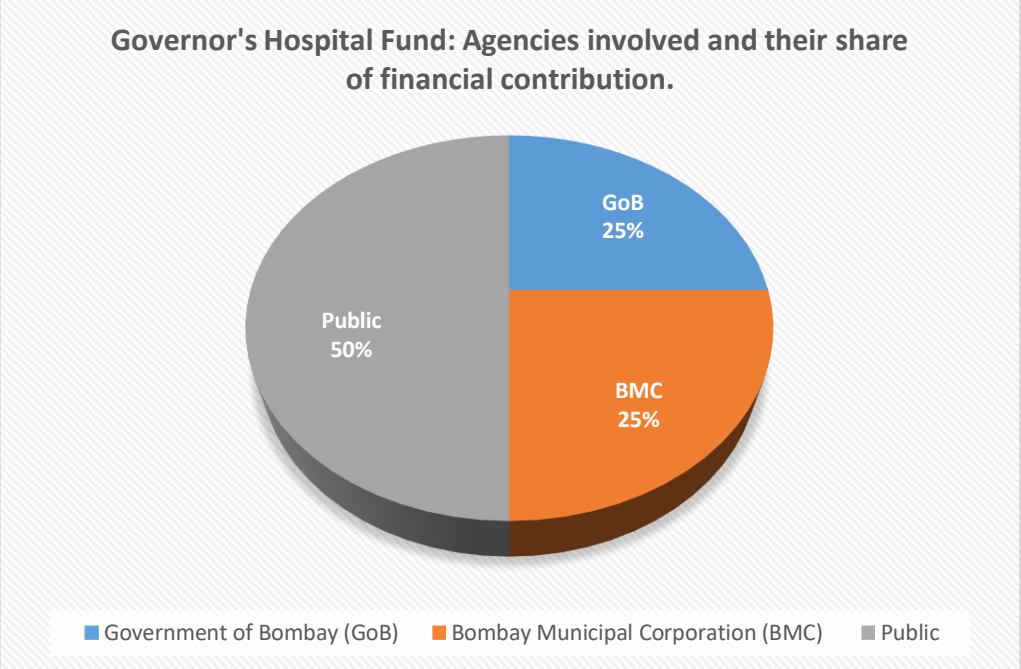
65 Ibid., p. 118.
66 Ibid.
67 Ibid., pp. 118- 19.
68 Ibid., p. 119.
69 Press Note, 8 October 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
70 Ibid.
71 Ibid.

approved by the committee and the Governor's Hospital Fund for the city of Bombay was set up in 1925.[72]

Figure 5: Agencies involved in the Governor's Hospital Fund and their share of financial contribution.



IV. GOVERNOR'S HOSPITAL FUND

On 9 December 1925, Wilson, as governor of Bombay, inaugurated a new fund to provide for increased hospital accommodation in the city.[73] Most of Bombay's prominent citizens including Sir Ibrahim Rahimtoola, Sir Dinshaw Wacha, Sir Jamsetjee Jeejeebhoy, Sir Currimbhoy Ebrahim, Sir E. Victor Sassoon, Sir Fazulbhoy Currimbhoy, Sir Chimanlal Setalvad and Sir Cowasji Jehangir, were present at an inauguration ceremony held in the Town Hall to support the effort that was being made to raise funds for medical relief in the city.[74] On the day of the inauguration of the Hospital Fund, Wilson clarified that the Hospital

[72] *Times of India*, 17 February 1925.
[73] Press Note, 8 October 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
[74] *Times of India*, 10 December 1925.

Fund was instituted to help Government to assist the BMC in carrying out its responsibilities.[75] However, the establishment of the Governor's Hospital Fund was in itself a proof that the Government of Bombay had realised that the arrangement made with the Police Charges Act of 1907 was no longer sustainable; indirectly they recognised that the Municipality could no longer be expected to bear the entire burden for the expansion and maintenance of general hospitals in the city.[76] Moreover, the fund was designed only to make a contribution towards the construction of new hospital beds but not towards their maintenance.[77]

The sheriff of Bombay, Sir Henry Macnaghten, thought that the fund should be named the 'Sir Leslie Wilson Fund' in recognition of the efforts taken by the Governor towards providing medical relief in the city.[78] While agreeing to the title of the fund during his tenure in the office, Wilson made it clear that he would like it changed at some later date. The Governor did not want the fund to be associated with him entirely because it was to be a permanent institution and therefore he thought the fund should have a more general name.[79] The Governor's Hospital Fund was to be administered by two committees: the Executive Committee and the General Committee.[80] All the funds collected would be entrusted to the Honorary Treasurer from which the executive committee would then give grants to the hospitals they thought desirable and necessary.[81] Sir Ness Wadia was the Chairman of the fund for the initial four years.[82] The Governor's Hospital Fund played a crucial role in the development of health infrastructure in the city during the inter-war period and deserves a detailed study. However, there is a paucity of sources available about the work

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75 Ibid.
76 *Times of India*, 24 April 1924.
77 Press Note, 8 October 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
78 Ibid.
79 Ibid.
80 *Times of India*, 10 December 1925.
81 Ibid.
82 *Times of India*, 10 December, 1931.

of the fund in public archives and libraries. The *Times of India*, a leading national daily, covered the work of the Governor's Hospital Fund and this allows us to trace its development in some detail.

Continuing the trend of seeking examples from the United Kingdom to address problems in colonial Bombay, the managing body of the Governor's Hospital Fund decided that the fund was to follow the lines of the King Edward Hospital Fund in London.[83] This was formed in 1897 as an initiative of the then Prince of Wales to allow for the collection and distribution of funds in support of the hospitals of London.[84] Its initial purpose was to raise money for London's voluntary hospitals, which at that time offered the only health services available to poor people in the capital and it also ensured that the contributions raised flowed towards those hospitals in greatest need.[85] In 1902, the Prince of Wales Hospital Fund for London was renamed the King Edward's Hospital Fund for London following the Prince's accession to the throne.[86] In 1907, the King Edward's Hospital Fund for London was incorporated under the same name by an Act of Parliament, after which it began to extend its activities, namely hospital inspections and the encouragement of a more even distribution of health services across the growing expanse of the city.[87] It took on responsibility for an emergency beds service and encouraged hospitals to open pay beds as a means of raising extra income.[88] In the later years, the King's Fund also represented London's voluntary hospitals' concerns in health and welfare policy debates during the first half of the 20th century.[89]

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[83] *Times of India*, 10 December 1925.
[84] John Pater, *The Making of the National Health Service* (London: King Edward's Hospital Fund for London, 1981), pp. 2-3.
[85] Ibid.
[86] Ibid.
[87] Ibid.
[88] Ibid.
[89] Ibid.

One of the major objectives of the Medical Relief Committee behind the establishment of the Governor's Hospital Fund was the expansion of hospital beds in the city. At the first instance, the Medical Relief Committee decided to add 850 beds to the already existing hospital accommodation and then slowly expand to 2,000 beds.[90] The 850 beds comprised 300 beds in the Government hospitals of the J. J. Hospital Group (made up of J. J. Hospital, Sir C. J. Ophthalmic Hospital, Bai Motlibai Hospital and D. M. Petit Hospital), and 550 beds in the Municipal hospitals. An increase of 550 beds in the Municipal hospitals was to be achieved by establishment of a new hospital at Mahim which would serve the extreme north of the island; the provision of an infirmary for chronic cases of illnesses and for the cases of advanced tuberculosis; and the extension of the Municipal Infectious Diseases Hospital.[91] The total cost of the provision of 850 beds was estimated to cost Rs. 7,100,000.[92] In an attempt to divide the cost in an approximately equal fashion between the colonial state and the municipality, the committee decided that Rs. 3,500,000 would be spent on buildings within the government group and Rs. 3,000,000 on buildings under Municipal control.[93]

A series of initiatives were undertaken to collect funds through public subscription, for the expansion of hospital beds in the city. The committee decided to celebrate one day in the year as 'Hospital Day'.[94] In the matter of organizing entertainments or making arrangements for the Hospital Day, the women in the city provided great help.[95] A number of sub committees were formed to collect funds: the Mills Sub Committee, Cinema Sub Committee, Students' Sub Committee, Extra Race Day Sub Committee, Flag Day Sub

[90] Press Note, 8 October 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
[91] Ibid.
[92] *Time of India*, 9 December 1926.
[93] Press Note, 8 October 1924, File No. 1856 Pt. III, 1923, General Department Compilation, MSA.
[94] *Times of India*, 10 December 1925.
[95] *Times of India*, 9 December 1925.

Committee, etc.[96] The women of Bombay contributed significantly to the functioning of the Governor's Hospital Fund. The *Times of India* reported that women were appointed as convenors of the various sub committees. In addition, a substantial number of women were also appointed on the General Committee and the Executive Committee of the Governor's Hospital Fund.[97]

The sub-committees received encouraging responses for the various programs organized in the city.[98] Under the leadership of P. M. Kanga, the Mills Subcommittee was able to arrange entertainment programs in the mill district and the mill workers extended their support by attending these events in huge numbers.[99] A total of Rs. 31,836 was collected in the year 1926 with the help of Social Service League.[100] The Cinema Subcommittee under F. S. Talyarkhan organized movie screenings and entertainment programs at the Excelsior, Gaiety, and Majestic cinema houses.[101] Approximately Rs. 4,000 were collected by the cinema subcommittee.[102] Other efforts included nearly 20,000 flags prepared by the Flag Day Sub-Committee for sale to the public to raise money for the city hospitals.[103] A Zoo Ball was organized on 11 December 1926 at the Princess Victoria Mary Gymkhana and the proceedings from the event went to Sir Leslie Wilson's Hospital Fund and the Happy Home for the Street Blind of Bombay.[104]

Private philanthropists in Bombay also extended financial support to the Governor's Fund. N. N. Wadia gave a generous donation of Rs. 1, 600, 000 towards the construction of a maternity hospital.[105] Though this donation was not included in the Governor's Hospital

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96 Ibid.
97 *Times of India*, 10 December 1925
98 *Times of India*, 9 December 1925.
99 *Times of India*, 7 January 1927.
100 *Times of India*, 9 December 1925.
101 Ibid.
102 Ibid.
103 Ibid.
104 *Times of India*, 9 December 1926.
105 *Times of India*, 10 December 1925.

Fund, the maternity hospital came under the same arrangement as agreed upon for buildings and extensions under the fund. The generous contribution of N. N. Wadia benefitted mostly the poor women employed in the mill area, and in a district where a maternity hospital was urgently required.[106] Byramjee Jeejeebhoy promised a sum of Rs. 200,000 towards a children's hospital to be named after his great grandfather.[107] The grand total of donations received by the Governor's Hospital Fund excluding the contribution of N. N. Wadia, came up to Rs. 507, 603.[108] Chapter Five will further elaborate on these developments.

In less than four years since its inception, the Hospital Fund was able to eliminate the stigma attached to the city of Bombay of not having adequate hospital accommodation in the Bombay Presidency. The fund was able to add 224 beds to the existing accommodation and built a dental school and quarters for nurses, staff, etc., at a total cost of Rs. 1,921,000.[109] Furthermore, the colonial state increased the accommodation in the Gokuldas Tejpal Hospital from 120 to 266 beds and provided the Yellapa Balaram pavilion of 104 beds in the J. J. Group.[110] The *Times of India* noted that in the initial four years of the Governor's Hospital Fund being established, the total hospital accommodation was increased to 2,856 beds or about 3 per 1,000 of the population.[111] However, this period also marked the beginning of a new crisis in the expansion of public health infrastructure in the city.

Since the beginning, the fund had concentrated its efforts on increasing the total number of hospital beds available for the masses, while overlooking the costs of maintaining these beds. This was a major oversight in the policy making process of the Governor's Hospital Fund. The problem was highlighted only in January 1931, when the BMC declared its inability to proceed any further with the extension of hospital accommodation in the

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106 Ibid.
107 Ibid.
108 Ibid.
109 *Times of India*, 10 December 1931.
110 Ibid.
111 Ibid.

city.[112] The municipality anticipated financial difficulties in the maintenance of the newly opened hospital beds. It was an important issue raised by the BMC, considering it had independently built and opened – in 1926 – the King Edward Memorial Hospital of 354 beds with a further possibility of expansion to a total of 400 beds and also made other small extensions adding a further 135 beds.[113] If the Bombay Municipal Corporation would have continued with the extension program, the newly opened beds would soon have had to be closed to the public considering the paucity of funds available for them to be kept in operation. Furthermore, the economic slowdown experienced during the Great Depression (1931) had a significant impact on colonial rule in India. The finances of India as a whole and of the Bombay Presidency in particular came into a dire state.[114] The Government stated in April 1931 that they could not provide for the recurring cost of maintaining 344 beds in the different hospitals, which cost annually Rs. 406,000 and consequently those beds were not being utilized for medical treatment.[115] The extension made to the hospital accommodation in the city of Bombay at the cost of Rs. 1,921,000 was now lying idle.[116]

By 1931 it was clear that the policy for providing adequate finance to raise the Bombay hospitals to the requisite standard of efficiency was not being tackled in an appropriate manner. The wards continued to be overcrowded, the patients to nurse ratio was imbalanced and, as such, patients did not get the kind of attention that they deserved from the medical staff.[117] All of this indicated that the entire issue of liability for the provision and maintenance of hospitals needed to be re-examined. Furthermore, it meant that the Governor's Hospital Fund at the outset of its career paid too much attention to buildings and too little to maintenance. The net result was that the city of Bombay possessed more

[112] Ibid.
[113] Ibid.
[114] *Times of India*, 10 December 1931.
[115] Ibid.
[116] Ibid.
[117] *Times of India*, 17 February 1932.

hospital accommodation than it could afford to operate. Although there was establishment of substantial new facilities, because of the lack of funds available, Bombay was actually in no better position to face an epidemic than it was during the influenza scourge which had raged in 1918 and 1919.

Ness Wadia, son of Nowroji Nusserwanji Wadia, a prominent textile industrialist, in his appeal to the Government that was published in the *Times of India*, stated that 'I would wish the laws of this country would allow some kind of sweepstake to be started, like the Irish Hospitals' Sweepstake, which has done so well and has not only enabled the Irish people to put their hospitals on a sound footing, but also a certain extent endow them towards the cost of maintenance.'[118] Ness Wadia was known as much for his philanthropy as for his business acumen. The Irish Hospitals' Sweepstake was a lottery established in the Irish Free State in 1930 to finance hospitals.[119] The Public Charitable Hospitals (Temporary Provisions) Act, 1930, was the Act that established the lottery; as this act expired in 1934, in accordance with its terms, the Public Hospitals Acts were the legislative basis for the scheme thereafter. The main organisers were Richard Duggan, Captain Spencer Freeman, and Joe McGrath.[120] After the Constitution of Ireland was enacted in 1937, the name Irish Hospitals' Sweepstake was adopted.[121]

However, the Government was of the opinion that under the then existing laws it was not possible for a sweepstake to be started for Bombay hospitals.[122] In addition to the legal dimension, there is also an ethical concern associated with lotteries to fund public hospitals. However arguable that buying a lottery ticket a relatively benign form of gambling,

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118 *Times of India*, 10 December 1931.
119 Ibid.
120 Elizabeth Malcolm [review], 'Mary Coleman, *The Irish sweep: a history of the Irish Hospitals Sweepstake, 1930-87* (Dublin: University College Dublin Press, 2009)', *Irish Studies Review*, 18:3 (Aug 2010), pp. 366-68.
121 Ibid, pp. 366- 368
122 *Times of India*, 10 December 1931.

some researchers argue that 'hospital lotteries blur the line between gambling and philanthropy'.[123] Across the world, concerns have been expressed over the 'ethical quagmire' that the hospitals could find themselves in if 'they become too dependent on gambling revenues'.[124]

In order to take a concrete step towards reopening hospital beds in the city, Sir Rustom Vakil[125] on behalf of the Government, convened a conference of representatives of several bodies interested in the welfare of the city.[126] The conference resulted in the formation of yet another committee, which was styled as the Hospital Maintenance Fund Committee on 6 August 1931.[127] It was the duty of the Hospital Maintenance Fund Committee to raise funds and distribute them in aid of hospitals in the city. According to the statistics for July 1933, nearly 382 beds were lying vacant in the Government hospitals and there was little prospect that the Government would be able to open these beds in the near future without the aid of the Hospital Maintenance Fund Committee.[128] Beyond these 382 beds, a number of beds were also lying vacant in various municipal hospitals.[129]

Several fund-raising initiatives were adopted by the Hospital Maintenance Fund Committee. For example, an 'Advertisement Ball and Cabaret' was organised at the Taj Mahal Hotel on 16 March 1932,[130] and in 1933, the committee decided to organise a 'fete'.[131] This was an effort to gather more funds towards the upkeep of the hospital accommodation. An appeal was made to the charitable public in the city of Bombay to come forward and

123 Roger Collier, 'Hospital lotteries not always the best bet', *CMAJ: Canadian Medical Association Journal* 178:13 (2008), pp. 1643–44.
124 Ibid.
125 Sir Rustom Vakil was a prominent medical practitioner in the city of Bombay.
126 *Times of India*, 26 July 1933.
127 Ibid.
128 *Times of India*, 26 July 1933.
129 Ibid.
130 *Times of India*, 16 March 1932.
131 *Times of India*, 26 July 1933.

contribute towards the emergency which had confronted the city.[132] The Committee decided that half of the proceeds of the Fete should be given to the Municipality and half to the Government.[133] The Fete was held at the Esplanade Maidan on 7 February 1934,[134] and over a lakh of rupees were credited to the Hospital Maintenance Fund.[135] Another major contribution was made by the Royal Institute of Science. The proceeds approximately worth Rs. 14,000, at the scientific exhibition held at the Royal Institute of Science, were given to the Bombay Hospitals Maintenance Fund Committee.[136] By organizing a wide range of events, the Hospital Maintenance Fund Committee was able to open two wards in Bombay's city hospitals: first, the Ellappa Balaram Pavilion at the J. J. Hospital, and second, the North Wing of the Gokuldas Tejpal Hospital, from September 1932 onwards.[137] The funds collected were also utilized by the Government to supplement diet and medicine grants in the J. J. Group of Hospitals, St. George Hospital, and the Cama and Albless Hospital.[138]

In 1937, the expansion of King Edward Memorial (henceforth KEM) Hospital wiped out the entire balance available with the Governor's Hospital Fund.[139] This gave rise to the question of whether the fund should be continued for the future or simply closed.[140] An annual report for 1935 of the Hospital Maintenance Fund Committee also mentioned that 'the response from the public was not adequate'.[141] One of the prominent reasons for the inadequate response from the citizens of Bombay was the fact that around the mid-1930s, multiple funds were set up across the city in order to expand public health infrastructure.[142] By the mid-1930s, a wide range of voluntary organizations were working towards provision

132 *Times of India*, 15 January 1934.
133 *Times of India*, 12 January 1934.
134 *Times of India*, 15 January 1934.
135 *Times of India*, 21 June, 1935.
136 *Times of India*, 20 December 1934.
137 *Times of India*, 16 September 1932.
138 *Times of India*, 12 January 1934.
139 *Times of India*, 26 April 1937
140 Ibid.
141 *Times of India*, 15 January 1936.
142 *Times of India*, 26 April 1937.

of health infrastructure for the masses. An increasing number of funds created a 'pressure on the public purse'[143] and this resulted in lower rates of collections towards the Governor's Hospital Fund. In 1939, the Governor mentioned in his speech to the executive committee that rather than closing the fund, the committee should concentrate on identifying possible solutions to keep the fund running.[144] The Governor was confident that the influential body of citizens associated with the fund would work towards the same and the fund would acquire a more permanent character.[145] However, it seems that with the onset of the Second World War, the Governor's Hospital Fund did not receive any further attention. Very little information is available about the work undertaken by the Governor's Hospital Fund from 1940 up to the declaration of Indian independence.

V. THE INDIAN NATIONAL MOVEMENT AND PUBLIC HEALTH INFRASTRUCTURE

From the beginning of the 20th century, nationalism emerged as a force in India and the political landscape witnessed an increasing struggle for political power.[146] In the field of medicine and allied research, while the Montagu-Chelmsford reforms on one hand resulted in the decentralization of power, on the other hand they also provided for further colonial domination. The Indian Medical Service,[147] for example, continued to remain under the purview of central government.[148] This resulted in a growing discontent among the Indian

[143] Ibid.
[144] *Times of India*, 21 April 1939.
[145] Ibid.
[146] Pratik Chakrabarti, 'Signs of the Times: Medicine and Nationhood in British India', *Osiris* 24:1 (2009), pp. 188-211, at p. 193.
[147] The Indian Medical Services, was a body of medical men emerging from the eighteenth-century military traditions of the English East India Company.
[148] David Arnold, 'Colonial Medicine in Transition: Medical Research in India', *South Asia Research* 14:1 (1994), p. 24.

medical professionals about the nature of the Indian Medical Service,[149] something that was also visible in the city of Bombay.

Since the beginning of British rule in India, the field of medical practice and research had been dominated by the British officers who were the elite members of the Indian Medical Service.[150] By contrast, Indian medical men were only appointed at subordinate non-clinical positions,[151] deliberately kept away from the positions of power and authority. In 1913, the native population accounted for only 5 percent of the Indian Medical Service.[152] From the beginning of the twentieth century, the domination of the British officers was contested by the rise of nationalism in the Indian subcontinent.[153] The Indian medical men began to demand for equal opportunities based on merit in the Indian Medical Services.[154] Another important peculiar feature of the Indian Medical Services was the process of recruitment. The entrance exams were conducted only in England and the training was provided entirely at British universities, making it difficult for the Indians to enter the colonial service.[155] In a similar vein, the colonial government ensured that the Indian university curriculum, courses in health and medicine and research in the allied fields, all remained elementary by contrast.[156]

The growing 'nationalism in its attempts to create its own identities and spaces had challenged some of the established norms of medical tradition that the British had so carefully established in India, a process that endangered political, physical, moral, and institutional encroachment.'[157] Since the late 19th century, the Indian medical men began to formally protest against these set procedures of the colonial authorities. The Bombay Medical

149 *Rast Goftar*, 15 February 1914.
150 *Kesari*, 10 February 1914.
151 *Sanj Vartaman*, 19 February 1914.
152 Roger Jeffery, 'Recognizing India's Doctors: the Institutionalization of Medical Dependency, 1918-1939', *Modern Asian Studies* 13 (1979), pp. 301-326, at p. 311.
153 Chakrabarti, 'Signs of the Times', p. 190.
154 *Kaiser-i-Hind*, 22 February 1914.
155 *Sanj Vartaman*, 19 February 1914.
156 Chakrabarti, 'Signs of the Times', p. 191.
157 Ibid, p. 190.

Union, in partnership with the Indian National Congress (INC), began demanding an end to the monopoly of the Indian Medical Services.[158] In 1913, the Bombay Medical Union sent its representation to the Royal Commission on the Public Services in India demanding equal status, privileges, and emoluments for the independent medical mean, especially those in higher grades.[159] Soon after the end of First World War, the colonial government passed the Rowlatt Act (1919). A series of events following the passing of the Rowlatt Act, resulted in the launch of Non-Cooperation Movement from Bombay in 1921.[160] Furthermore, the arrival of Gandhi on the national front and his political ideology of 'satyagraha' and 'swadeshi' had a significant impact on the minds of the native population.[161]

In the following section, I argue that during the interwar period, the contemporary political environment and the arrival of Gandhi had a significant impact on the policies related to public health infrastructure in Bombay city.

i) The Non-Cooperation Movement-

The Non-Cooperation Movement was the first of the three mass movements initiated by Gandhi.[162] One of the important aspects of the movement was the refusal to engage with the institutions set up by the British and instead opt for ones run by native organizations. The idea of the Non Cooperation movement appealed to the members of the Grant Medical College in Bombay and they decided to boycott the British government by leaving the Grant Medical College and instead moving to Medical Colleges run by the natives. Many members of staff and students of the Grant Medical College began shifting to National Medical College near Victoria Gardens.[163] Famous medical practitioners from the Grant Medical College held

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158 Ibid.
159 Ibid.
160 Sekhara Bandyopadhyaya, *From Plassey to Partition: A History of Modern India*, (New Delhi: Orient Longman, 2004), pp. 284-285.
161 Ibid.
162 Ibid, p. 291
163 Official website of the Topiwala National Medical College and Nair Hospital http://www.tnmcnair.com/home/about.html#.Wf5BJ7p2vmI (Accessed 5 August 2017)

evening classes for medical students.[164] This initiative was taken to prove that the Indians themselves could build and maintain medical institutions without the support of the British government.

The political ideas of Gandhi seem to have a profound impact on the decisions taken by the donors and the managing committee of the King Edward Memorial Hospital and Seth Gordhandas Sunderdas (henceforth GS) Medical College, which was established immediately after the end of the Non-Cooperation Movement in 1926.[165] Though the hospital was built through a public-private partnership, the equipment committee consisting of Dr Rustom Cooper, Dr P. T. Patel,and Col. Hamilton urged the BMC to boycott the use of British goods during the purchase of scientific apparatus and medical instruments for the hospital.[166] As far as the management of KEM Hospital was concerned, Sir Pherozshah Mehta, Dr. Jehangir Cursetji and other donors insisted that professors and teachers employed should all be qualified Indians who were not working for the government.[167] The BMC passed a resolution stating that 'the medical staff employed in the King Edward VII Memorial Hospital should consist of properly qualified independent Indian gentlemen not in actual Government Service'.[168] It was a significant step considering that it provided employment opportunities for qualified Indian teachers and doctors' when they were denied attachments at the Grant Medical College of J. J. Hospital in Byculla, which was the only medical school in the city at that point.[169]

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164 Ibid.
165 Ibid.
166 Sunil Pandya, 'Seth Gordhandas Sunderdas Medical College and King Edward VII Memorial Hospital, Bombay' on the official website of the KEM Hospital https://www.kem.edu/about/hospital-layout/ (Accessed 5 August 2017). The article published on the website, first appeared in the National Medical Journal of India in January 1988.
167 Ibid.
168 Nandakumar Keswani (ed.), *Silver Jubilee Souvenir, The History and Growth of the Seth Gordhandas Sunderdas Medical College and The King Edward VII Memorial Hospital* (Bombay, 1951), p. 3.
169 *Times of India*, 24 January 2016.

As far as the organization of the hospital and the medical school was concerned, the BMC decided to approach the Bombay Medical Union for a detailed scheme, instead of consulting a colonial institution.[170] Dr Jivraj Mehta, who had just returned from London after obtaining a medical degree, was approached by the union and he accepted the proposal.[171] He suggested a radical departure from the traditional design of teaching hospitals in India. Before the opening of KEM Hospital, most hospitals had isolated blocks that housed separate medical departments.[172] Instead of following this set style, Dr Mehta proposed that the entire medical college should be housed in one large building and the hospital (including the out-patient block) in a separate building.[173] In the opinion of Dr Mehta, this would facilitate coordination between the various departments.[174] The Seth GS Medical College and KEM Hospital were the first multi-storeyed institutions of their kind[175] and also the first Indian hospital housing the out-patient department within the main hospital building.[176]

During the Non-Cooperation phase, nationalist leaders felt that the city of Bombay should have a medical college that was established only with the help of locally generated funds, without any help from the colonial government. This medical college was to serve the Indian medical students who were denied admission in the Grant Medical College.[177] Through the donations received from the Tilak Swaraj Funds, the National Medical College was established in September 1921 at the Victoria Cross Lane in Byculla.[178] It was at the National Medical College that the medical students received clinical instruction and were

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[170] Official website of the KEM Hospital http://www.kem.edu/about/hospital-layout/ (Accessed 3 November 2017)
[171] Ibid.
[172] Keswani (ed.), *Silver Jubilee Souvenir*, pp. 3-4.
[173] Ibid.
[174] Official website of the KEM Hospital http://www.kem.edu/about/hospital-layout/ (Accessed on 3 November 2017)
[175] Ibid.
[176] Ibid.
[177] Official website of the Nair Hospital and Topiwala National Medical College http://www.tnmcnair.com/home/about.html#.Wfy2902ZOUl (Accessed 3 November 2017)
[178] Ibid.

trained not only to provide medical relief to the patients at the hospital but also encouraged to serve the local community.[179] Ayurveda, an indigenous system of medicine, was taught at this institution because the managing committee of the hospital took great pride in the heritage of the Indian subcontinent.[180]

The administrators of the National Medical College wanted to set up People's Free Hospital so that the students could receive their clinical instruction at the same.[181] However, they were faced with a paucity of funds and had ruled out approaching the colonial government for help. During their search for local support to fund their efforts, Dr A. L. Nair who was the proprietor of Powell and Co., dealing with medical supplies and equipment, extended financial aid.[182] He donated two acres of land for the hospital campus and helped to set up a well-equipped hospital in 1925, which was then named after his mother, Bai Yamunabai Laxman Nair.[183] The hospitals had 55 beds, including a separate maternity wards.[184] Apart from Nair, social reformers M. R. Jayakar, Kaikobad C. Dinshaw, Rajabali V. Patel, and K. Natarajan, editor of the *Indian Social Reformer*, were on the board of trustees.[185] The medical men working with these two institutions performed their duties in an honorary capacity and at a considerable self-sacrifice, considering that neither of these institutions were recipients of government aid.[186]

W. S. Carter, from the Rockefeller Foundation, commented critically on the National Medical College and declared it to be the 'weakest' in the country.[187] He noted that because the college was closely associated with the nationalist movement, it was not recognized by

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179 Ibid.
180 Ibid.
181 Ibid.
182 Ibid.
183 *Times of India*, 20 March 1929.
184 Ramanna, *Health Care in Bombay Presidency*, p. 92.
185 Official website of the Nair Hospital and Topiwala National Medical College http://www.tnmcnair.com/home/about.html#.Wfy2902ZOUl (Accessed 3 November 2017)
186 *Times of India*, 20 March 1929.
187 General Department Compilation, File no. 1175, 1914, MSA.

the government.[188] Carter found the medical education imparted to the students was of low standard and therefore he declared Nair's move to place his hospital at the disposal of National Medical College, to be a case of 'misplaced philanthropy'.[189] There is, however, an evident bias reflected in Carter's assessment of the National Medical College. Soon after its establishment, the institution began to provide medical relief to the native population. In the year 1926, a final year student from the National Medical College stood first among the successful medical students of the Presidency.[190] This went to prove that the native medical professionals were capable of not only effectively managing the medical care facilities, but were also efficient in imparting knowledge of medicine to the students.

In 1929, the hospital management undertook the extension of the Bai Yamunabai L. Nair hospital.[191] The committee felt that this was necessary due to the overwhelming number of cases who sought medical relief at the institution.[192] The hospital was located in a thickly populated locality, and due to the charitable nature of institution, it had become extremely popular.[193] Dr. Nair once again came forward and made a generous contribution towards the extension program, he agreed to bear the expenses of the extension exclusive of the equipment.[194] Mr. Venkatrao, a member of the Executive Committee for the hospital urged the masses to come forward and contribute towards the program. He firmly believed that the work of medical relief and medical education was difficult without the support of the native population.[195] The people of Bombay supported the cause and contributed generously towards the extension program.[196]

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188 Ibid.
189 Ibid.
190 *Times of India*, 20 March 1929.
191 Ibid.
192 Ibid.
193 Ibid.
194 Ibid.
195 Ibid.
196 *Times of India*, 25 March 1946.

ii) The Civil Disobedience Movement-

Gandhi initiated the Civil Disobedience Movement in 1930.[197] During the course of the movement, violent confrontations between the native population and the imperial forces resulted in a high number of casualties among the native population.[198] However, no arrangements were made on behalf of the colonial government to provide medical relief to the wounded. There was palpable callousness on the part of the government in this matter.[199] The Indian National Congress and various organizations attached to the party opened up improvised hospitals for the treatment of patients.[200] For example, Congress Free Hospital was set up in the city on 25 May 1930 and the *Times of India* called it as the 'by-product of the *satyagraha* campaign in the city'.[201]

Various sections of the society came forward to support the working of the Congress Free Hospital. Similar to the system existing at the National Medical College and Nair Hospital, the medical staff voluntarily agreed to work at the Congress Free Hospital and did not receive payment of any kind.[202] It was looked at by the medical staff as a kind of service towards the nation. The hospital was stocked with medical equipment, food items such as grains and milk, medicines, etc., all of which came as gifts from philanthropic traders.[203] Not only did the Barbers' Association in the city of Bombay make a donation towards the hospital fund, they also offered their voluntary service.[204] Other residents in the city such as washermen and taxi drivers in the city of Bombay also helped the patients free of charge.[205] Thus, one can conclude that the nationalist movement during the inter-war period has a

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197 Bandyopadhyaya, *From Plassey to Partition*, p. 301.
198 *Times of India*, 30 August 1930.
199 Ibid.
200 Ibid.
201 Ibid.
202 Ibid.
203 Ibid.
204 Ibid.
205 Ibid.

tangible impact on the development and management of public health infrastructure in Bombay.

VI. THE KING GEORGE MEMORIAL FUND COMMITTEE

The reaction of the local elite population towards the colonial state, with respect to development of public health infrastructure was complex in nature. While some promoted the ideals of Gandhi, others set up a memorial fund for the deceased King George V in 1936.[206] A public meeting of the citizens of Bombay city was called by the Sheriff on 11 February 1936 'to express their deep sense of grief at the death of His Late Majesty King George V'. [207] It was during at this meeting that the citizens decided to establish a fund in the memory of King George V.[208] The committee was styled the 'King V Memorial Fund Committee' and the first meeting was held at the Government House on 17 March 1936.[209] This committee was led by the Governor of Bombay, Lord Brabourne and included other members such as Sir Jamsetjee Jeejeebhoy, Sir Sohrabji Pochkhanawala, and others.[210] It was unanimously decided that a small portion of the fund should be used to erect a statue of George V at a suitable site and that the major portion was to be directed towards providing help to the sick and suffering of Bombay city.[211]

The committee of the King V Memorial Fund took three major decisions at the outset. First, the Governor decided to add the balance amount (approximately Rs. 250,000) from the Silver Jubilee Fund to the King V Memorial Fund. This was done specifically because the Jubilee Fund was also to be devoted to the relief of the sick and suffering in the city. Second, the committee agreed to use the fund towards the construction of an infirmary

206 *Times of India*, 23 March 1936.
207 *Times of India*, 24 March 1936.
208 Ibid.
209 *Times of India*, 23 March 1936.
210 Ibid.
211 Ibid.

in the city. An infirmary was crucial to the city of Bombay as it would relieve the pressure on the hospitals by shifting incurables to the infirmary. This would in return allow for an increased number of admissions of curable patients, who required skilled attendance, to the hospitals for their treatment. A third important decision taken was that unlike the earlier funds created to provide medical relief in the city, the appeal would be entirely of requests for subscriptions, i.e., no entertainment of any sort would be organized to raise fund.[212] It was probably felt by the committee, that entertainment programs should be avoided since it was a memorial fund to a British monarch.

While the committee agreed to construct an infirmary as a memorial to King George V, the Governor of Bombay made it clear that they would not erect any new buildings unless they were in a position to endow them fully for the future.[213] This was probably decided upon keeping in mind the debacle of the Governor's Hospital Fund started in the 1920s. While the expansion of hospital beds was relatively easy, the recurring costs involved in the operation and maintenance of the beds was more problematic. It was estimated that a total sum of Rs. 600,000 would be required for the construction of an infirmary and the erection of a statue.[214] As far as the collection of funds was concerned, the members of the committee were provided with subscription books.[215] Immediately after, Sir Cowasji Jehangir announced a generous donation of Rs. 200,000 on his behalf.[216] In December 1936, the Bombay Helpless Beggars Relief Committee, based at Rowli Hill in Matunga, decided to collaborate with the King George V Memorial Fund in the construction of a new structure for the helpless beggars in the city.[217] The Bombay Helpless Beggars Relief Committee was established in

[212] Ibid.
[213] *Times of India*, 24 March 1936.
[214] *Times of India*, 4 April 1936.
[215] *Times of India*, 1 April 1936.
[216] *Times of India*, 16 December 1936.
[217] *Times of India*, 30 March 1938.

1920 to supervise the rescue work of the helpless beggars and to formulate a plan to provide a permanent refuge to the beggars in the city.[218]

By the end of December 1936, approximately Rs. 723,400 was available as a fund.[219] The city was able to get together the entire required amount in less than a year. With the funds made available, the Governor of Bombay was keen that the BMC should provide a site on the Haines Road free of cost.[220] The municipality agreed to give the piece of land, 'measuring seven and half acres on perpetual lease at a nominal rent'.[221] Thus, the King George V Memorial scheme enabled the erection of a statue, construction of a fully endowed infirmary and a new structure for the Helpless Beggars Home for the city of Bombay.[222] Another important step in the management of the memorial scheme was that the two executive committees – the King V Memorial Fund Committee and the Silver Jubilee Fund Committee – decided to amalgamate into a joint committee to be called the King George V Jubilee and Memorial Committee.[223] Thus, all the requirements for the memorial were met and the final plan was sanctioned by the committee.

The project was collectively called the 'King George V Memorial'.[224] The statue of King George V was inaugurated opposite the Gateway of India.[225] The statue, made of bronze was casted at the foundry of Rao Bahadur G K Mhatre at Vile Parle in the suburbs of the city.[226] 50,000 Rupees were spent on the statue, which included the land, pedestal and the lighting arrangement.[227] The beggars home was known as 'Lady Dhunbai Jehangir Home for

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218 Ibid.
219 *Times of India*, 16 December 1936.
220 Ibid.
221 *Times of India*, 31 July 1937.
222 *Times of India*, 17 December 1936.
223 *Times of India*, 16 December 1936.
224 Ibid.
225 *Times of India*, 31 July 1937.
226 Ibid.
227 Ibid.

the Destitute' and was erected by Sir Cowasji Jehangir from his donation of Rs. 200,000.[228] According to the plan, the beggars' home and the King George V Infirmary were established on the same site. The infirmary was used for the incurables from the Home and in relief of the congestion in the city hospitals. The Home was used for the helpless destitute beggars, whether they came from the streets of the city of Bombay, or from the city hospitals on being discharges, or whether they came from the infirmary. The King George V Infirmary and the Lady Dhunbai Jehangir Home for the Destitute was inaugurated by the Governor of Bombay, Sir Roger Lumley on 30 March 1938 at Haines Road.[229] The Mayor of Bombay, Dr. E. Moses, was the chairman of the Managing Committee of the King George V Memorial.[230]

VII. CONCLUSION

The history public health infrastructure in colonial Bombay during the inter-war period is an important and much neglected area of study. It was a period of transition not only in the policy making process but also in the attitudes of many elites towards public health infrastructure. The transition from accepting the medical policies initiated by the colonial authorities to the native population contributing actively and asserting their demands in the policy making process. It becomes evident that the unwillingness displayed by the colonial state in the improvement of healthcare infrastructure, resulted in the citizens taking it upon themselves to cater to the demands of the general population. They worked actively in collaboration with the BMC.

With the Police Charges Act of 1907 for the city of Bombay, the colonial state had made it clear that it was no longer willing to invest in public health provision. Therefore, the Government of India Act of 1919 had little impact on the management of health and

[228] *Times of India*, 16 December 1936.
[229] *Times of India*, 30 March 1938.
[230] Ibid.

sanitation in the city. Following the First World War, the enthusiasm displayed by the colonial state in the development of public health infrastructure, was largely to limit the growing discontent amongst the masses in the city. No efforts were made to formulate a long term policy to address the core issues associated with the problem of health, sanitation and well-being. The Governor's Hospital Fund was a classic example of failure on the part of the government agencies.

An analysis of the interwar period allows us to conclude that the expansion of health infrastructure in the city was only possible because of the generous contribution of the local society. While the government authorities designed plans, it was the native population that bore the financial responsibility of these projects. In the Governor's Hospital Fund, the public contributed 50 percent of the total amount. The King Edward Memorial Hospital and Seth Gordhandas Sunderdas Medical College, which catered for the working-class of the city, was set up largely due to the donations made by private philanthropy. It was similar for the Nair Hospital, the King George V Infirmary, and the Lady Dhunbai Jehangir Home for the Destitute – all set up to cater to the poor population of the city.

Nationalist ideas had a strong impact on the policy making process. Inequalities existing in the Indian Medical Service were pointed out and openly criticized. This struggle was taken up by the women medical practitioners as well. A number of petitions were made to the Women's Medical Service to remove various unjust and unrealistic qualification criteria.[231] While European women medical practitioners suffered from gender bias and were appointed at lower positions in comparison to men, the Indian women medical practitioners were victims of both racism and gender bias. Some of the European women doctors believed that the Indian women doctors lacked adequate experience and therefore should not be

[231] *Sanj Vartaman*, 19 February 1914.

employed on higher posts.[232] 'It was only in the 1920s, that a few Indian women rose to be medical officers in the hospitals.'[233] From the early twentieth century onwards, the INC began to take up various issues related to the medical profession and made it a part of their agenda. New medical infrastructure projects were undertaken by the native population without any help from the existing government. They took it upon themselves to gather funds and establish medical institutions in the city. Mass movements started by Gandhi and the political ideology associated with him had a profound impact on the nature of protest staged by the medical professionals. Some of the common forms of protests used by natives included the boycott of government medical institutions and British medical equipment, an emphasis on the indigenous systems of medicine, and so on.

The local newspapers urged the elites in the city to collaborate with the municipal government and set up new hospitals, dispensaries and research institutes.[234] Extensive coverage given to the health infrastructure policies in the native newspapers speaks volumes for the impact of print media in generating awareness amongst the masses. During the Second World War, the city of Bombay played an important role as the centre of medical relief in the Bombay Presidency. Many medical men from the city also went out on war to provide their services on the battlefield. However, there is little information available in the archives and native press about the developments in the field of public health. The focus of the historical records shifts entirely to the ongoing war and therefore establishing a timeline for key events between 1939 and 1945 is challenging. Soon after the end of the war, India came independent and ushered in a new set of health policies under the newly formed Congress government.

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[232] Ramanna, Healthcare in Bombay Presidency, p. 146.
[233] Ibid, p. 138.
[234] *Indu Prakash*, 20 April 1914.

CHAPTER FOUR

Civil Society, Social Service Organisations and Workers' Health

We train men who would go about, rouse people to a sense of duty, raise local money and energy, gradually building up small institutions, and develop the public life of the country.

- Gopal Krishna Gokhale, 1910[1]

The city of Bombay emerged as a major industrial hub with the establishment of cotton textile mills from the 1850s onwards.[2] At first, the city exported yarn to the Chinese market[3] and later began production of coarse cloth for domestic consumption.[4] The textile mills in the city attracted a large labour force from the rural hinterlands. A majority of the labourers working in these mills migrated from Konkan, Deccan and the United Provinces (present day Uttar Pradesh and Bihar).[5] By the late nineteenth century, the city of Bombay occupied the prime position in the global textile industry.[6] However, the existing scholarship on colonial textile labour in Bombay does not really go beyond the political and economic

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[1] 'The First Member's Inaugural Address', Servants of India Society Fifth Anniversary Day, 12 June 1910, Servants of India Society Papers, correspondence (1905-30), File no. 4, Part II, Nehru Memorial Museum and Library, New Delhi. [See Carey Watt, *Serving the Nation – Cultures of Service, Association, and Citizenship in Colonial India* (New Delhi: Oxford University Press, 2005), p. 1.]
[2] Manjiri Kamat (ed.), *Mumbai Past and Present- Historical Perspectives and Contemporary Challenges* (Mumbai: Indus Source Books, 2013), p. 4.
[3] Dietmar Rothermund, 'Mumbai: From Fishing Village to Metropolis', in Kamat, *Mumbai Past and Present*, pp. 17-40, at p. 23.
[4] Ibid, p. 26.
[5] Rajnarayan Chandavarkar, *The Origins of Industrial Capitalism in India: Business Strategies and the Working Classes in Bombay, 1900- 1940* (Cambridge: Cambridge University Press, 1994), p. 128.
[6] Ibid, p. 244.

domain.[7] Although historians such as Rajnarayan Chandavarkar, Morris R Morris, and others have looked at economic, political and social formation of the working classes, their health and physical well-being has attracted less attention.

This chapter critically examines how public health policies and reforms implemented by government agencies and voluntary organisations shaped wider understanding of the urban working class on issues such as health and wellbeing. Second, existing scholarship on the idea of social upliftment in Bombay has considered the views of Gandhi and Gokhale. In this chapter, I analyse the views of another prominent but overlooked figure, Dr. B. R. Ambedkar, on social upliftment *vis-à-vis* Gandhi and Gokhale, with a particular focus on some of the initiatives undertaken by Bombay's Social Service League. His views allow us to better understand the class and caste biases in both the approach and practices of the various social service organisations in the city. Finally, the chapter outlines the work undertaken by the Bombay Sanitary Association, the Social Service League (henceforth SSL), King George V Anti-Tuberculosis League, and the Young Men's Christian Association (henceforth YMCA) in 'improving' the health and well-being of the urban poor in inter-war Bombay.

I. CIVIL SOCIETY, NATION-BUILDING AND IDEAS OF SOCIAL SERVICE

Prashant Kidambi identifies the late nineteenth and early twentieth century as a crucial period in shaping of the nature and character of urban civil society in the city.[8] Citizens with similar interests and agendas came together to form various associations in the city. Kidambi notes that 'while the colonial power may have defined the contours of the civil society that emerged in Bombay, its substantive character was shaped from the very outset by indigenous

[7] Priyanka Srivastava, *The Well-Being of the Labor Force in Colonial Bombay, Discourses and Practices* (London: Palgrave Macmillan, 2018), p. ix.
[8] Prashant Kidambi, *The Making of an Indian Metropolis: Colonial Governance and Public Culture in Bombay, 1890- 1920* (Aldershot: Ashgate Publications, 2012), p. 201.

initiatives.'[9] While, in nineteenth-century Bombay, social reformers and associated organisations focussed on eliminating social evils such as *sati*, *purdah*, ill treatment awarded to widows, and *devdasis*,[10] from the 1890s onwards the 'reform-minded elements within the Indian intelligentsia widened the debates on the social question to include the conditions of the lower orders of society'.[11] Kidambi argues that this resulted in the emergence of the idea of 'social service' alongside 'social reform'.[12]

The first half of the twentieth century witnessed the establishment of a number of social service organisations in the city. Some of the prominent organisations were the Bombay Sanitary Association, SSL and the YMCA. One of the prominent reason for the same was the 'racial and national anxieties' that emerged in colonial India at this time, along with many other parts of the world.[13] In the late nineteenth century, the racial and national anxieties that developed around the globe resulted in the emergence of the efficiency movement.[14] Watt argues that 'though India did not have a self-proclaimed national efficiency movement, the ideas and language of social and national efficiency were certainly widespread' at this time.[15] The proponents of national efficiency in India were the intelligentsia and the various social service organisations.[16] Therefore, the issues associated with public health, sanitation, and the 'upliftment' of the depressed classes were identified as priority areas by the organisations involved in voluntary effort.[17]

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[9] Ibid, p. 160.
[10] Geraldine Forbes, *Women in Modern India* (Cambridge: Cambridge University Press, 1996), p.17
[11] Kidambi, *The Making of an Indian Metropolis*, p. 204.
[12] Ibid.
[13] Watt, *Serving the Nation*, p. 44.
[14] The Efficiency Movement – A major movement in the West and other industrial nations in the early 20th century that sought to identify and eliminate waste in all areas of the economy and society, and to develop and implement best practices. The concept covered mechanical, economic, social, and personal improvement.
[15] Ibid, pp. 44-45.
[16] Ibid, p. 45.
[17] Ibid, pp. 42-3.

Further, from the late nineteenth century onwards, the ongoing Indian national movement had a significant impact on the ideas that governed the various voluntary organisations in the city.[18] In Bombay, the members of the Bombay Presidency Association played a crucial role in the decision making process of the Indian National Congress (henceforth, INC).[19] However, in the early 1900s, the INC in Bombay began to lose its popularity under the leadership of Sir Pherozshah Mehta.[20] At the same time, Gokhale emerged as a leader and was able 'to breathe some new life into the Moderates'.[21] He visualized a nation-building program with a focus on self-improvement and self-respect by investment in public works.[22] Gokhale believed that through voluntary effort, marginalised sections of the Indian society could be uplifted and the differences that existed between the various classes could be eliminated. He had strong views on female education[23] and the political issue of 'untouchability'. At the Dharwar Social Conference in April 1903, Gokhale, while urging a crusade against untouchability, had asked:

> Cannot a few men five per cent, four per cent, three, two, even one per cent of hundreds and hundreds of graduates that the University turns out every year, take it upon themselves to dedicate their lives to this sacred work of the elevation of low castes?[24]

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18 Kidambi, *The Making of an Indian Metropolis*, p. 194.
19 Ibid, p. 195.
20 Sumit Sarkar, *Modern India 1873-1947* (New Delhi: McMillan, 1983), p. 95.
21 Ibid.
22 Ibid.
23 During his visit to England in 1897, Gokhale highlighted the need for female education. See B. R. Nanda, *Gokhale: The Indian Moderates and the British Raj* (Delhi: Oxford University Press, 1998), p. 152.
24 R. P. Patwardhan and D. V. Ambekar (eds), *Speeches and Writings of Gopal Krishna Gokhale* (Pune: Asia Publishing House, 1962), Vol 4, p. 61.

Gokhale was of the opinion that once a more equal society had been established, 'a renovated India would march onwards to a place among the best nations of the world'.[25] Civic activism and social service proved to be important mediums through which the goal of a cohesive society could be achieved. The Bombay branch of the Servants of India Society[26] opened night schools, conducted lectures and 'magic lanterns' shows for the labour population in the city.[27] In Bombay, it was Gopal Krishna Devadhar, Amritlal Bappa and others who played an active role in the management of the Servants of India Society.[28] Despite Gokhale's strong views and the work of the Servants of India Society on a variety of social issues related to the 'depressed classes' and the working-class population, he himself displayed a 'lukewarm interest' in the field of social work.[29] Gokhale decided to side-line social service as he was more interested in pursuing a political career.[30] However, Gokhale's ideas resulted in a nationwide wave and voluntary institutions sprang up in different parts of the subcontinent. In Bombay, some of the earliest social service institutions included the Bombay Presidency Social Reform Association, formed in 1903, and the Depressed Class Mission Society, formed in 1906.[31]

Another important consideration for the inter-war period was the emergence of Gandhi as a leader of the masses and his particular political philosophy. The ideas of social service and self-help found a dominant presence in the Gandhian philosophy of *Swarajya* and *Sarvodaya*. In his writing, Gandhi focused on the duty of the privileged sections to take

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[25] The Preamble to the Constitution of the Servants of Indian Society written by Gopal Krishna Gokhale quoted in V. Parvate, Gopal Krishna Gokhale: A Narrative and Interpretative Review of His Life, Career and Contemporary Event (Ahmedabad: Navjivan Press, 1959), p. 192.
[26] In 1905, Gokhale founded the Servants of India Society in Poona. See Kidambi, *The Making of an Indian Metropolis*, p. 208.
[27] Carey Watt, 'Education for National Efficiency – Constructive Nationalism in North India, 1909-1916', *Modern Asian Studies*, 31: 2 (1997), pp. 355-62.
[28] Kidambi, *The Making of an India Metropolis*, pp. 208-09.
[29] Nanda, *Gokhale*, p. 153.
[30] Ibid.
[31] Srivastava, *The Well-Being of the Labor Force in Bombay*, p. 111.

responsibility for the depressed and 'backward' classes in the society.[32] He suggested the 'levelling down of a few rich in whose hands is concentrated the bulk of the nation's wealth on the one hand and the levelling up of the semi-starved, naked millions on the other'.[33] Gandhi's philosophy had a strong influence on the educated elites of the city. In this setting, they saw it as a part of their responsibility to 'uplift' the poor sections of the society. Therefore, one can conclude that the political ideology surrounding India's struggle for independence was strongly linked with the ideas of self-respect, self- improvement, and social service.

II. WORKERS' HEALTH AND WELLBEING IN THE INTER-WAR PERIOD

Following the plague epidemic of 1896, the colonial state was successful in portraying the poor localities as 'bearers of the plague contagion' and therefore being a 'direct threat to the physical well-being of Bombay's elites'.[34] The local authorities in Bombay were largely driven by the idea that the poor working class gave rise to insanitary conditions and urban decay in the city.[35] This resulted in the elites and the middle classes believing that the inhabitants of the mill district were victims of their class and caste specific habits when it came to health and sanitation; and in order to eliminate the threat of epidemic diseases and infection, it was the duty of the educated elites to introduce the mill hands to basic principles of sanitation.[36] Furthermore, as in other industrial cities around the world, the intellectual elites of Bombay

[32] M. K. Gandhi, *Hind Swaraj or Indian Home Rule* (Ahmedabad: Navjivan Trust, 1938), pp. 52-7.
[33] Official website of Mani Bhavan, Mumbai: http://www.gandhi-manibhavan.org/activities/essay_socialwelfare.htm (accessed 18 September 2018)
[34] Kidambi, *The Making of an India Metropolis*, p. 70.
[35] Ibid, p.68.
[36] Jehangir J Cursetji and Dinsha Bomanji Master, "Unhygienic Bombay: Its Causes and its Remedies" in Transactions of the Bombay Medical Congress, 1909, MSA (Bombay: The Times Press, 1910), pp. 371-80.

were becoming increasingly concerned with the 'social consequences of industrial urbanization'.[37]

To address the issues associated with the health and well-being of the city, members of Bombay's intelligentsia looked at their counterparts around the globe for possible solutions. This was an era when the local press in Bombay played a crucial role in the 'coverage of world affairs'.[38] This enabled the elites of Bombay to stay updated with information related to the various policies and debates surrounding the issue of poverty and poor health in the 'metropolitan West'. Furthermore, the city's intelligentsia were well travelled and many of them had studied in colleges and universities abroad.[39] Borrowing ideas from around the world and adapting them to the needs of Bombay's urban society, the intellectuals in Bombay set up a number of voluntary organisations.[40] Some of the prominent organisations focusing on labour health and welfare were – the Bombay Sanitary Association, the Social Service League, the Anti-Tuberculosis League and the Young Men's Christian Association. Taking the analysis a little further, I argue that in the inter-war period, the government agencies and industrialists worked in tandem with the voluntary organisations to exert control over the lives of the industrial working class.

The fight for independence from the colonial yoke gained momentum in the early twentieth century. Anti-colonial sentiment reached its peak in the inter-war period as a result of the mass movements initiated by Gandhi.[41] The native population began to participate in large scale political movements launched by the nationalist leaders. In a bid to appease the representatives of labour, the colonial government introduced a series of legislations and welfare measures. On the other hand, as industrial strikes became a regular feature in the

[37] Kidambi, *The Making of an Indian Metropolis*, pp. 218-21.
[38] Watt, *Serving the Nation*, p. 33.
[39] Kidambi, *The Making of an Indian Metropolis*, p. 221.
[40] Ibid.
[41] Chandra, *India's Struggle for Independence*, p. 217.

city, the mill owners believed that control of labour was essential to ensure smooth social relationships between the employers and the employees.

The working-class movement in Bombay evolved in parallel to the national movement. In the early part of the twentieth century, the labour force began to mobilize and conduct organised actions under a number of unions and political parties.[42] The mill workers demanded an increase in the wages and better working conditions.[43] Jehangir Bomanji Petit, the chairperson of Bombay Millowners Association, noted the increase in the number and frequency of strikes in the early decades of the twentieth century.[44] In addition, the war time inflation between 1914 and 1918 escalated the cost of living and there was a decrease in the workers' real wages. This further exacerbated the problems faced by the mill hands. Nearly 80 strikes occurred between 1917 and 1918, each demanding increase in wages and payment of war bonuses.[45]

In response, the industrialists began to identify means to exert control and regulate the lives of the labour force as a counter to the rise in militancy at the workplace. Though the need for social control was felt by the various powerful agencies, neither the mill owners nor the colonial state was keen on allocating any significant funds to improve the conditions of health and sanitation in the city. It was the need to regulate the industrial working class gave rise to the use of social service as one of the political tools to control and regulate the lives of the mill hands in the city. The colonial authorities and the industrialists decided to collaborate with the various voluntary organisations in the city to 'govern' the lives of the mill hands by focussing on health, well-being and recreation. As Carey Watt argues, 'rather than the quest for a strong, centralized nation state, the elites who were at the forefront of

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42 Ibid.
43 Ibid.
44 *Annual Report of the Bombay Millowners' Association, 1913* (Bombay: The Millowners' Association, 1914), p. vii.
45 *Bombay Chronicle*, 10 January 1919.

social service, were keen on the creation of small intermediate institutions and voluntary spaces between Indian individuals and the colonial state that could be used to control important areas of Indian public life'.[46] The government agencies and the industrialists believed that the activities organized by the voluntary associations would keep the mill hands away from participating in the labour politics and strikes.

In the following section, I will critically evaluate the work undertaken by the BSA, SSL and other agencies in addressing issues related to health, sanitation and well-being of the industrial workforce residing in the mill district of Bombay.

i) The Bombay Sanitary Association

The Bombay Sanitary Association (hereafter, BSA) was established in the year 1904 by John A. Turner, the municipal health officer of Bombay and N H Choksy.[47] Nasarwanji Hormusji Choksy was a medical professional in twentieth century colonial Bombay. From the early 1900s onwards, initially working with John Andrew Turner, Bombay's activist Health Officer, Choksy was involved in a collaborative effort to promote public health through the establishment of semi-official organizations.[48] The aim of the Association was to 'create an educated public opinion with regard to sanitation in general, to diffuse knowledge of sanitation and hygiene generally, and of the prevention of spread of disease by means of leaflets, lectures and practical demonstrations'.[49] The BSA was very much a product of the plague and the colonial government's attempt to combat it by drawing on the resources of Indian civil society.[50] Though the Association was initiated by the city's medical officer and

[46] Watt, *Serving the Nation*, p. 175.
[47] Ramanna, *Healthcare in Bombay Presidency*, p. 43.
[48] Mridula Ramanna, 'Nasarwanji Hormusji Choksy (1861-1939), a pioneer of controlled clinical trials', James Lind Library Bulletin: Commentaries on the history of treatment evaluation (2014) http://www.jameslindlibrary.org/articles/nasarwanji-hormusji-choksy-1861-1939-a-pioneer-of-controlled-clinical-trials/ (Accessed 04 May 2019)
[49] Ibid, p. 42.
[50] Kidambi, *The Making of an Indian Metropolis*, p. 215.

involved major Indian medical practitioners, it was the professionals and the middle class in Bombay that contributed significantly towards the activities of the Association.[51]

Table 4.1: Growth of the mill districts of Bombay between 1881 and 1931.[52]

Section	1881	1891	1901	1911	1921	1931
Mahalaxmi	6,232	17,014	18,092	26,302	37,108	34,880
Byculla	26,842	47,403	57,646	75,348	91,285	89,835
Mazagaon	27,904	33,640	27,933	30,075	32,092	42,992
Parel	18,560	28,740	33,390	45,474	59,534	61,567
Sewri	5,555	6,063	9,294	19,067	27,124	26,556
Sion	17,237	19,601	25,443	30,680	52,913	68,119
Mahim	17,309	8,505	27,386	30,492	47,171	48,502
Worli	14,621	25,493	45,588	89,611	118,045	114,531

Table 4.2: Population in each district of the old native town.[53]

Section	1881	1891	1901	1911	1921	1931
Chakla	37,048	32,197	24,384	24,231	22,996	17,322
Mandvi	42,351	37,295	31,402	33,202	38,517	37,719
Umarkhadi	54,656	52,466	48,481	45,679	47,218	40,458
Dongri	33,290	30,317	25,778	27,246	19,966	11,346
Market	49,130	44,751	28,415	30,172	35,080	38,145
Kumbharwada	34,990	32,209	27,544	27,703	32,481	31,743
Khara Talao	28,691	27,035	23,161	22,979	23,925	22,209
Tardeo	20,281	18,980	20,958	27,758	31,933	31,296
Kamathipura	28,455	29,203	26,706	36,751	44,585	37,571

In the late nineteenth century, the industrial labour force began to occupy the northern part of the city. They moved away from the native town, into localities such as Parel, Mazagaon, Byculla, Sion, and Sewri, as cheaper accommodation was available in these villages.[54] Soon, a majority of the cotton textile mills in Bombay were concentrated in the E, F, and G wards of the city.[55] However, it is important to note that the non-Brahmin upper

[51] Ibid.
[52] Census of India, 1931, Vol IX, Part II, p. 158-9.
[53] Ibid.
[54] Chandavarkar, *The Origins of Industrial Capitalism in India,* p. 168.
[55] Labour Office, Bombay, Report on an Enquiry into Working Class Family Budgets in Bombay City in 1932-3 (Bombay, 1935), p. 2.

caste population resided closer to the mills, while the lower caste and specifically the 'untouchables' resided in poorer localities surrounding the mill district such as Kamathipura, Kumbharwada, Agripada, Dharavi, Ambewadi, etc. There was a clear caste segregation visible in the housing patterns of the mil hands. The E, F, and G wards in the city were the focal points as the BSA believed that the labour class was 'ignorant of the basic principles of personal hygiene and sanitation'.[56] In the reports of the BSA, these localities were continuously identified as 'filthy'. In order to address the issue of overcrowding and insanitary conditions, the BSA organised house-to-house visitations. They recruited a number of health visitors, both male and female, for the same, who were paid 40 to 50 rupees per month.[57] The health visitors were formally trained in health and sanitation by the BSA before they could set out on inspection rounds. Turner believed that the health visitors appointed by the BSA helped the Municipality establish a point of contact with the industrial working population of the city.[58]

In its annual report for 1914, the BSA claimed to have visited nearly 6000 chawls. These visitations involved health visitor interacting with the residents, identifying serious medical cases and encouraging them to seek professional medical help in the city.[59] The BSA would then also draft a report of the visit in which they would identify the issues of overcrowding and poor sanitation in the concerned localities. These reports were then submitted to the Municipality.[60] However, there is no evidence that shows how the local government responded to the reports submitted by the BSA. Apart from the inspection rounds, the association also organised various lectures and awareness programs for the mill

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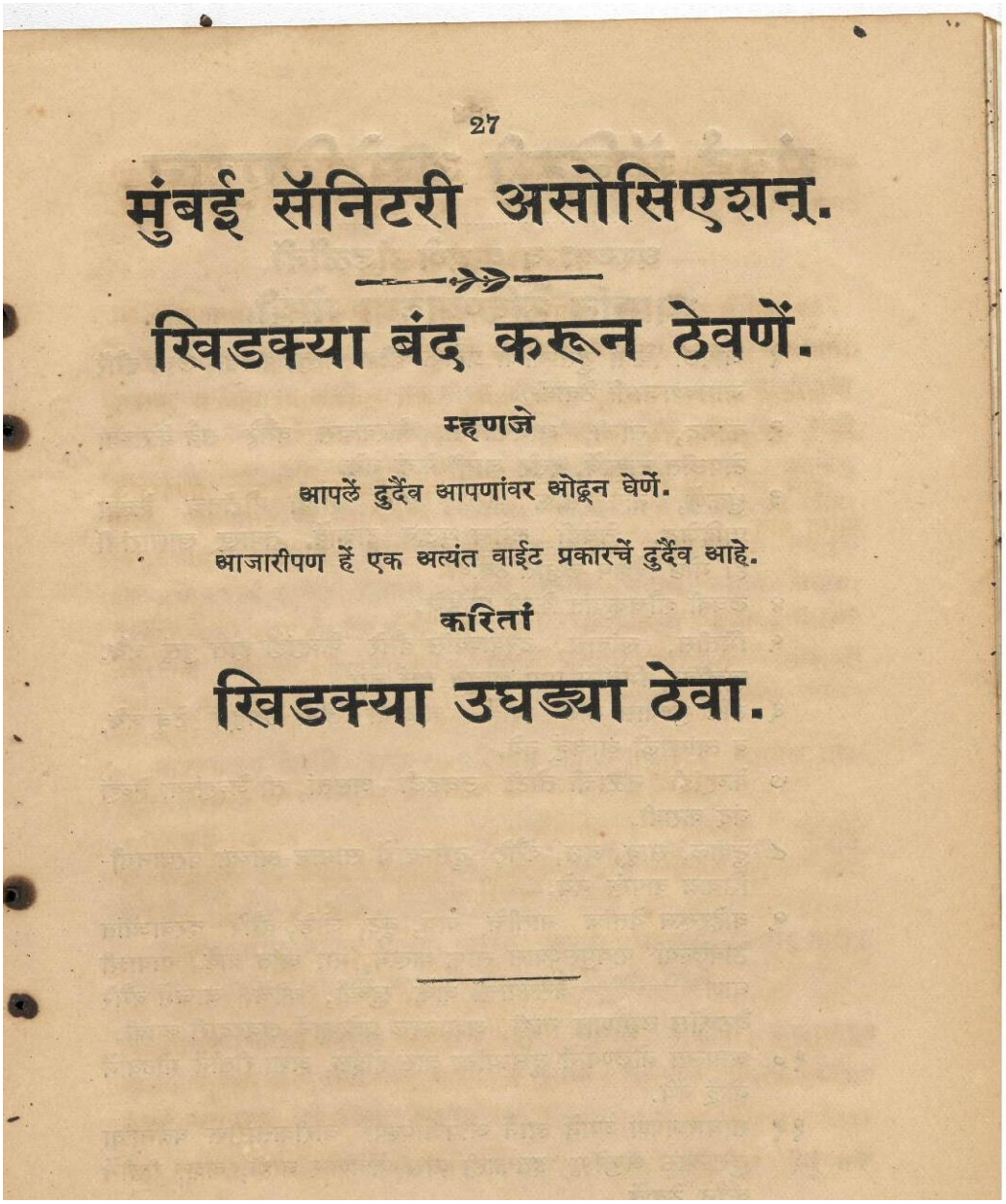
[56] General Department, File no 937, 1919, *Fourteenth Annual Report of the Bombay Sanitary Association, 1913,* Appendix, MSA.
[57] Ibid.
[58] General Department, File no 938, 1919, *Fifteenth Annual Report of the Bombay Sanitary Association, 1918*, MSA.
[59] General Department, 1915, *Eleventh Annual Report of the Bombay Sanitary Association, 1914,* MSA.
[60] Ibid.

hands in the city. Some of the topic taken up for lectures included: infectious diseases, maternal and infant health, problems associated with alcoholism, and basic principles of health and sanitation. The BSA used various visual aids such as magic lanterns and illuminated slideshows to generate more interest amongst the audience.[61] The BSA also distributed leaflets in various vernacular languages such as Marathi, Hindi, and Gujarati.[62]

[61] *Annual Report of the Bombay Sanitary Association, 1913*, MSA.
[62] Ibid.

Figure 6: Image of Bombay Sanitary Association's leaflet in Marathi, highlighting the benefits of ventilation and warning against shutting the windows.[63]



27

मुंबई सॅनिटरी असोसिएशन्.

खिडक्या बंद करून ठेवणें.

म्हणजे

आपलें दुर्दैव आपणांवर ओढून घेणें.

आजारीपण हें एक अत्यंत वाईट प्रकारचें दुर्दैव आहे.

करितां

खिडक्या उघड्या ठेवा.

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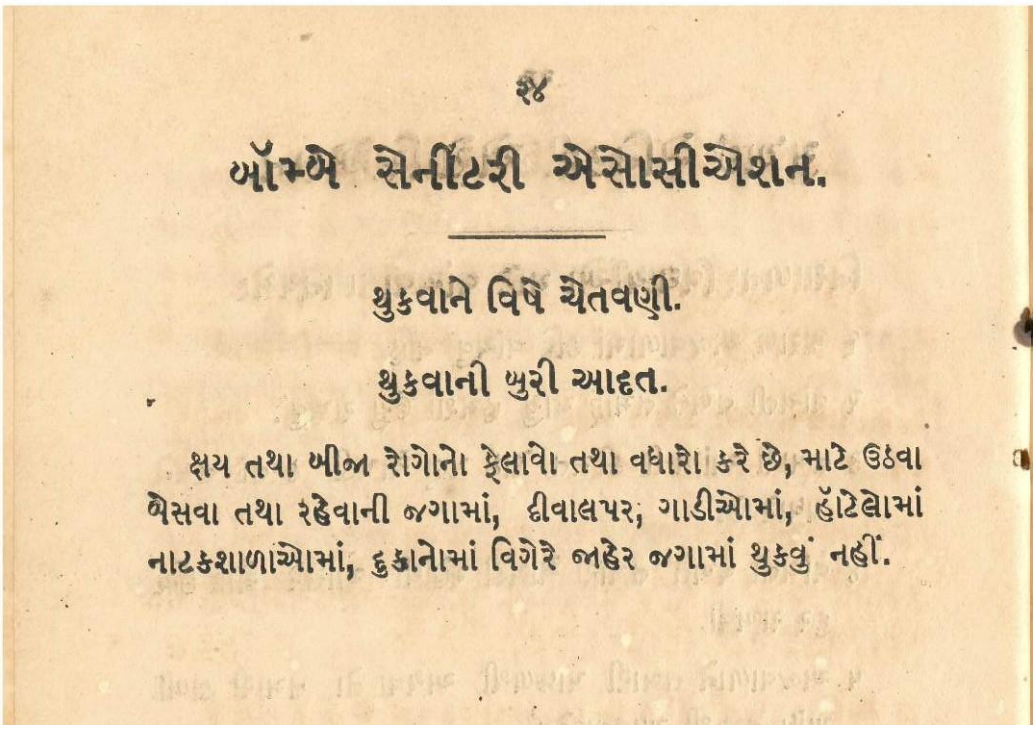
[63] Bombay Sanitary Association, Sanitary Leaflets (Bombay: Indu Prakash Steam Press, 1914).

Figure 7: Image of Bombay Sanitary Association's leaflet in Gujarati, warning against spitting in the public sphere.[64]



૨૪

બૉમ્બે સેનીટરી એસોસીએશન.

થુકવાને વિષે ચેતવણી.

થુકવાની બુરી આદત.

ક્ષય તથા બીજા રોગોનો ફેલાવો તથા વધારો કરે છે, માટે ઉઠવા બેસવા તથા રહેવાની જગામાં, દીવાલપર; ગાડીઓમાં, હૉટેલોમાં નાટકશાળાઓમાં, દુકાનોમાં વિગેરે જાહેર જગામાં થુકવું નહીં.

[64] Ibid.

Figure 8: Image of Bombay Sanitary Association's leaflet in Marathi, providing information about plague and precautions to be taken.[65]

मुंबई सॅनिटरी असोसिएशन.

प्लेगनिवारणार्थ अगाऊ करण्याच्या तजविजी.

१. हा रोग चक्रेमध्ये नग, जखमा, कीटकाचे दंश आणि खरचट-लेली कातडी वगैरे ठिकाणी विषाचा प्रत्यक्ष प्रवेश होऊन विशेषतः होत असतो. म्हणून शरीर विशेषी संसर्ग झालेल्या वस्तूंशी स्पर्श न होऊं देण्यासंबंधी सावधगिरी ठेवावी. ज्या खोलीत प्लेग झालेला मनुष्य निजला असेल अथवा जेथें प्लेगमुळें एखादा मृत्यु झाला असेल अशा ठिकाणी निजणें फार धोक्याचें आहे.

२. आपलें शरीर, कपडेलत्ते व आंसरूणपांघरूण यांसंबंधानें फार स्वच्छता बाळगावी.

३. दूषित झालेल्या जागेतील मातीच्या जमिनी खणून माती काढून टाकावी व त्या ठिकाणी नवीन मुरूम घालावा अथवा सिमेंटचा कोबा करावा अथवा फरश्यांची तजवीज करावी.

४. घरासभोंवती केरकचरा, घाण व पाणी साचूं देऊं नये.

५. रोगाचा प्रसार उंदरांच्या योगानें होतो, म्हणून उंदीर मारून टाकण्याचा होईल तेवढा प्रयत्न करावा.

६. राहण्याची खोली स्वच्छ ठेवावी, खोंत वारा चांगला येईल, अशी तजवीज करावी आणि फार दाटी होऊं देऊं नये.

७. घर दूषित झालें म्हणजे तें सोडून इतर ठिकाणी राहण्यास जावें.

८. घरांतील कोणी मनुष्याला प्लेगचा विकार झाला तर म्युनिसि-पालिटीच्या दवाखान्यांतून अथवा कोणी लायक डाक्टराकडून उपचार करावा.

९. प्लेगचा विकार झाला असतां त्यासंबंधी म्युनिसिपालिटीच्या दवाखान्यांतील (डिस्पेन्सरी रजिस्ट्रारला) लगलीच माहिती द्यावी, म्हणजे त्याबद्दल अवश्य तजवीज सदर डाक्टराकडून करण्यांत येईल.

१०. घरांत प्लेग अथवा इतर संसर्गजन्य रोग झालेला मनुष्य इतर मनुष्यांपासून अलग ठेवण्याची व्यवस्था होण्यासारखी नसली तर रोगाचें पूर्वसूचक असतानाच त्याला म्युनिसिपालिटीच्या इस्पितळांत पोंचवावें म्हणजे तेथें सर्व व्यवस्था करोबर होईल.

११. दूषित झालेलें घर सोडून इतर ठिकाणी जाणें, हें संरक्षणाचें उत्तम साधन आहे; म्हणून प्लेग चाल्ला असतां दूषित झालेलें ठिकाण सोडून दूर रहावें.

१२. इर्वांयुऔषधान हा एक प्लेगापासून संरक्षण करण्याचा सुलभ झाली चांगला उपाय आहे, असें अनुभवावरून कळतें.

१३. लोकांनी याप्रमाणें संरक्षणाचा प्रयत्न केला व वरील तजविजी अमलांत आणिल्या तर म्युनिसिपालिटीच्या अधिकाऱ्यांना प्लेगचें निवारण सुलभ रीतीनें करितां येईल.

Mus Rattus.

♂ Pulex cheopis

Mus Decumanus.

♂ Pulex Irritans

Pulex Cheopis (Female).

Pulex Cheopis (Male).

[65] Ibid.

Most chawls in the mill district hired a caretaker to manage the smooth functioning of the chawls on a daily basis. These caretakers or '*bhayas*' were trained by the volunteers of the association in basic principles of health and sanitation. They were then required to carry out regular inspection in the chawls with a particular focus on 'cleanliness of rooms and latrines, periodic lime washing, ventilation, overcrowding of rooms and wastage of water'.[66] The Municipality greatly endorsed this part of the BSA's work. In return, the *bhayas* would receive small monetary awards from the BSA.[67] From the early 1920s, the BSA began to concentrate its efforts in the field of maternal and infant welfare. The same will be highlighted in the next chapter of the thesis.

ii) The Social Service League

The Social Service League was established on 19 March 1911 by prominent upper caste Marathi social reformers such as Narayan Malhar Joshi, Narayan Ganesh Chandavarkar and Dr Bhalchandra Krishna Bhatawdekar. The aim of the organisation was to improve 'the physical, moral, mental, social and economic conditions of the poorer classes in Bombay City'.[68] The focus of the SSL was the industrial working-class and they worked in close coordination with various industrial establishments in the city.[69] Issues related to health and sanitation of the mill hands continued to be one of the top priorities of the league.[70] Although the movement originated in connection between members of the Brahmin community, the League claimed to be secular in nature and looked beyond the boundaries of caste and creed.[71]

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66 General Department, 1916, Twelfth Annual Report of the Bombay Sanitary Association, 1915, MSA, p. 5.
67 Ibid.
68 *First Annual Report of the Social Service League for the year 1911-2*, (Bombay: Social Service League, 1912), p. 1.
69 *Times of India*, 14 December 1925.
70 *First Annual Report of the Social Service League for the year 1911-2*, p. 2.
71 Ibid.

However, one cannot overlook the fact that SSL's ideology was heavily borrowed from personalities such as Gopal Krishna Gokhale and Gandhi. Much like Gandhi, Gokhale believed that the educated section of the society should help to elevate the members of 'depressed' and 'backward' classes.[72] The Social Service League cultivated this idea of responsible citizenship through their programs and publications. In an article for the *Social Service Quarterly*, N. M. Mazumdar stated that:

> Where the Municipality stops, the individual citizen must take up and continue the work. It is the citizen after all, who is the caretaker of the society in which he lives. We want an army of charitable social workers, men and women keenly alive to the duties of citizenship; men and women who will go out to rescue and reform, to prevent and uplift the lower classes.[73]

The League firmly believed that it was the responsibility of the elites to uplift the downtrodden in the society. This thought found reflection in one of the earliest programs undertaken by the SSL: the provision of bathing facilities for the children of the 'depressed classes'.[74] The volunteers of the league reported that the poorer classes did not have access to clean water and could not afford soap and; therefore the children went without taking a bath for prolonged periods of time.[75] According to them, this was a major cause of various health issues among the 'depressed' and 'backward' classes.[76] On Sundays, the volunteers would visit the chawls occupied by the 'depressed' classes and prepare baths for the children, followed by giving lectures on subjects such as sanitation and hygiene to the adults. In order to provide a hot water bath to the children, the League also bought a hot water boiler.[77]

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[72] Parvate, *Gopal Krishna Gokhale*, p. 192.
[73] N. M. Muzumdar, 'The Social Problems of a City', *Social Service Quarterly*, July 1916, p. 34.
[74] *First Annual Report of the Social Service League for the year 1911-2*, p. 9.
[75] Ibid.
[76] Ibid.
[77] Ibid.

Such programs of the League exposed an evident bias in their approach when it came to addressing the member of the lower caste communities, in spite of their claims of being secular both in their approach and outreach programs. The stereotypes and wide scale generalisations of the 'depressed classes' as being 'impure' and 'unhygienic' - and therefore polluting - found a strong presence in the work carried out by the league. It is important to note that the attitude of the upper classes towards the lower sections was in itself an outcome of the discriminatory social structure existent in the city. The Social service began to be used both as a platform to emphasize the upper-caste notions of self-sacrifice and philanthropy, and as a principle of political action that married class, caste, and gender regardless of the existing differences in the society. In the 1920s and 1930s, B. R. Ambedkar, leader of the Dalits, criticized this approach adopted by the social service organisations because he believed that it focussed on 'upliftment of the depressed classes' rather than implementation of practical and radical measures such as improving housing and public health infrastructure, the eradication of the caste system, and encouraging equal inter-caste communication.[78]

Dr Ambedkar's ideas of social service were in stark contrast to the ones propounded by Gandhi and Gokhale. He believed that 'Caste is not a physical object like a wall of bricks or a line of barbed wire which prevents the Hindus from commingling and which has, therefore, to be pulled down. Caste is a notion; it is a state of the mind. The destruction of Caste does not therefore mean the destruction of a physical barrier. It means a notional change.'[79] Caste discrimination was both a form of structural and cultural violence existing in the Indian society. Therefore, Ambedkar was of the opinion that social service and social work should aim to strengthen the oppressed sections of the society with social, economic, political, and legal support.[80] Education and awareness were crucial to the process of 'social

[78] Surendra Bhalerao, 'The Caste Concern in Social Work in India', *International Journal of Research in Humanities and Social Studies*, 3:12 (2016), pp. 7-13, at pp. 7-8.
[79] *Hindustan Times*, 14 April 2016.
[80] Bhalerao, 'The Caste Concern in Social Work', pp. 7-8.

upliftment' rather than the provision of temporary relief. The eradication of social inequalities demanded structural change, not simply superficial measures such as inter dinning, weekly baths, and provision of medical facilities; which were a popular practice amongst the upper-class and upper-caste social reformers in the city.

The social inequalities in Bombay's urban space were largely based on class and caste. Most activities undertaken by the social service organisations and private philanthropists supported the social system of inequalities and ignored the root cause of problem – caste-based discrimination. Ambedkar was aware of the group identities and interests associated with ideas of social service and philanthropy, and hence his long-term response was a direct attack against the root cause, i.e. towards eradication of the caste system.[81] Ambedkar believed that while efforts for social reform must continue, active steps should also be taken to bring about a change in the attitude of society and departure from the existing norms of behaviour. In his opinion, it was a slow process but an essential one.[82]

[81] Anup Hiwrale, 'Ambedkar Social Work: Its Theory and Practice', *Indian Journal of Dalit and Tribal Social Work,* 2:1 (2014), pp. 12-27.
[82] Ibid.

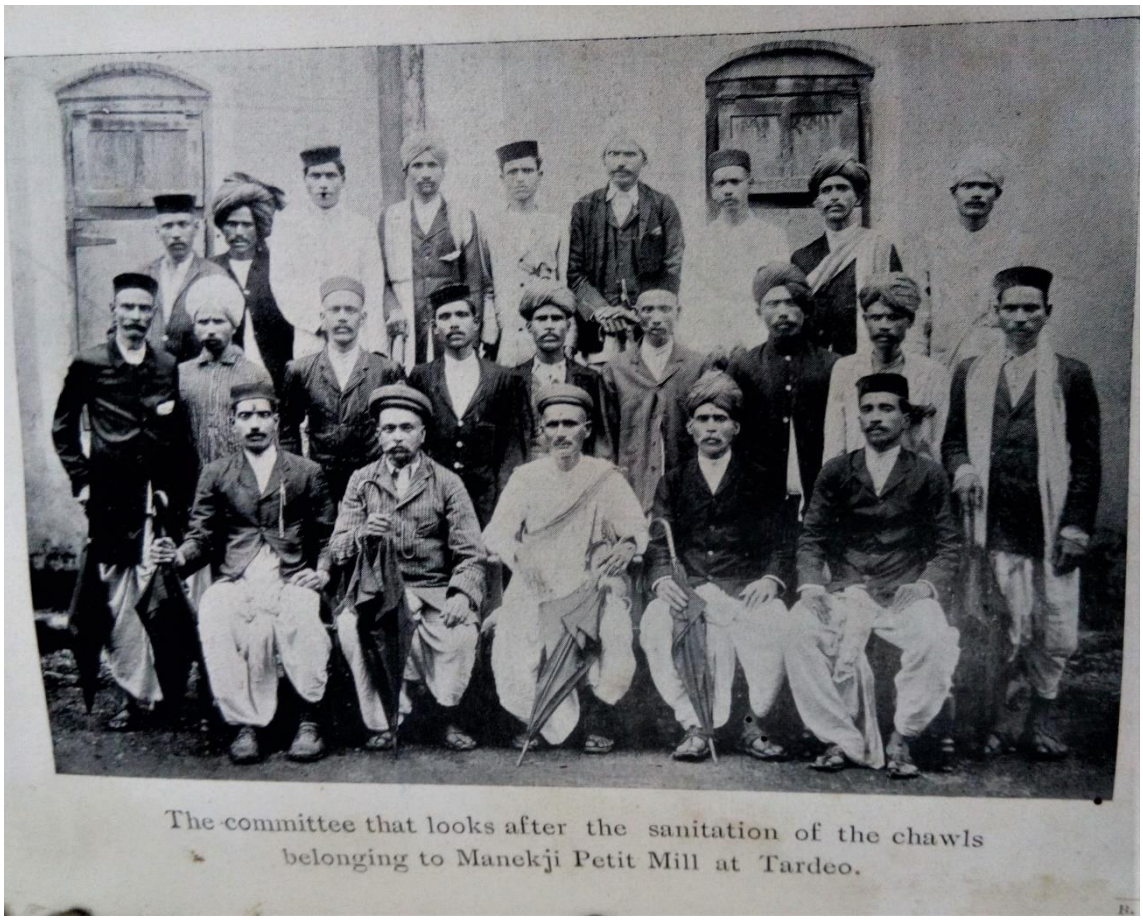
Figure 9: Image of provision of bathing facilities for the children of the 'depressed classes', a programme undertaken by the Social Service League.[83]

[83] Photograph by Mr. G. M. Jayakar, *Second Annual Report of the Social Service League for the year 1912-3*, (Bombay: Social Service League, 1913).

The programmes implemented by the League began to evolve over the years and acquired a more secular character. One of the important contributions of the SSL to the field of social work was the establishment of three temporary settlements in Tardeo, Chikhalwadi and Parel - some of the most congested localities in colonial Bombay with a large industrial working-class population.[84] The idea was borrowed from America and England where 'settlement houses' were set up 'with the idea of improving the social conditions of the poor classes, live in their localities and start various educational and social activities for raising their standard of living'.[85] In the settlements, one of the earliest initiatives undertaken by the members of the SSL was to improve the sanitary condition of the localities. SSL approached the Health Department under the Bombay Municipal Corporation and requested them to place dustbins outside each chawl and to send the garbage cart on a daily basis to clear the dustbins.[86] In Tardeo, at the end of the year, the chawls with dustbins were able to 'enjoy complete immunity' from plague which ravaged the neighbouring localities.[87] After the successful projects undertaken at Tardeo, Chikhalwadi and the Parel settlements, two permanent settlements were established in Parel and Madanpura in 1917 and 1918 respectively.[88]

[84] *Third Annual Report of the Social Service League* (Bombay: Social Service League, 1914), pp. 14-15.
[85] *Fourth Annual Report of the Social Service League* (Bombay: Social Service League, 1915), p. 13.
[86] *Third Annual Report*, pp. 15-17.
[87] *Sixth Annual Report of the Social Service League* (Bombay: Social Service League, 1917), p.1.
[88] Ibid, p. 28 and *Seventh Annual Report of the Social Service League* (Bombay: Social Service League, 1918), p. 1.

Figure 10: Image of the Social Service League Committee's that looked after the sanitation of chawls belonging to the Manekji Petit Mill at Tardeo.[89]



[89] *Third Annual Report of the Social Service League* (Bombay: Social Service League, 1914).

In addition to the permanent settlements, the SSL was also able to set up 'Workmen's Institute' for the Currimbhoy Ebrahim group and the Tata mills in 1918.[90] The agenda behind the establishment of the workmen's institutes was to provide a variety of 'welfare' activities for the 'education and recreation' of the mill hands.[91] It was an attempt to keep the workers engaged during their free time with 'constructive' activities, to avoid their participation in labour politics. During the general strikes of 1919 and 1920, N. M. Joshi, a trade union leader in Bombay, was of the opinion that,

> The danger of allowing a large mass of discontented working class population to brood over their wrongs secretly in an industrial city such as Bombay is really very great. They form a mass of combustible material waiting to catch fire at the slightest ignition, and threaten to be a source of constant danger to the peace of the city.[92]

As mentioned by Kidambi, the 'assumptions about the innate volatility of the poor prompted the leaders of the League to advocate social work on the grounds that it served to inculcate peaceful forms of self-expression amongst the working-classes'.[93] This approach adopted by the League worked in the interest of the mill owners and the colonial government, who wished for the labour class to refrain from undertaking industrial action. In an article published in the *Labour Gazette*, Fazalbhoy Currimbhoy, the owner of the Currimbhoy Ebrahim group of mills mentioned that welfare could neutralize the influence of trade unions among workers.[94] Thus, as argued earlier in the chapter, social control was exerted over the labour class through the 'welfare' activities undertaken by the voluntary organisations in the city.

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[90] Ibid, p. 30 and *Social Service Quarterly*, 3 April 1918.
[91] 'The Social Service League Bombay: An Account of its Sixty Years of Social Work, 1911-1971', *The Social Service League: Diamond Jubilee Souvenir* (Bombay: Social Service League, 1971), pp. 22-23.
[92] N. M. Joshi, 'Wanted: A Workers' Educational Association for Bombay', *Social Service Quarterly*, 6 January 1920, pp. 1-2.
[93] Kidambi, *The Making of an Indian Metropolis*, p. 230.
[94] *Ninth Annual Report of the Social Service League* (Bombay: Social Service League, 1920), p. 1.

With the onset of the First World War, the conditions of the industrial labour class further deteriorated in the city. An increase in textile production to cater for the demands of the war resulted in a large-scale migration of workers to Bombay.[95] As mentioned in Chapter 3, the population of Bombay almost doubled in the years 1911 and 1951.[96] Reports published by the government during the 1920s and 1930s suggest that there was significant overcrowding in the mill district.[97] In Bombay there was one building for every 22.3 persons, in comparison to one building for 6.2 persons in Ahmedabad.[98] This population expansion meant that there was great pressure on the already inadequate housing, health, and sanitation infrastructure of the city. The census report for 1921 pointed out that there was no comparison between the overcrowding in Bombay and the overcrowding in London - Bombay's conditions were far worse.[99] Though the war proved to be a period of boom for the industrialists in the city, they were reluctant to invest in industrial housing plans to accommodate the increasing labour population.

During this period, authors who wrote on industrial housing conditions in the *Social Service Quarterly*, such as Muzumdar, V. K. Kale and D. S. Savardekar, began to identify the workers' living quarters as 'repositories of contagious diseases, crimes and alcoholism'.[100] Instead of questioning the government and the industrialists, the League conveniently put the blame on the 'slumbering sanitary conscience of the illiterate workers'.[101] In order to address problems that emerged in the mill district, the SSL undertook a 'civilizing' mission. They employed a number of health visitors to conduct inspections of various chawls;[102]

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95 Chandavarkar, *The Origins of Industrial Capitalism in India*, pp. 251-2.
96 Census of India, 1931, Vol IX, Part I, pp. 158-159.
97 *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1923), Vol. II, Issue 1, p. 31.
98 *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1923), Vol. I, Issue 12, p. 21.
99 Ibid.
100 D. S. Savardekar, 'Industrial Housing', *Social Service Quarterly*, October 1923, p. 62.
101 *Social Service Quarterly*, January 1923, p. 170.
102 Foreword by Vaikunth Lal Mehta, Social Service League Bombay, Sanitation Department, Pamphlet no. 1, Bombay Pamphlets, etc., Vol 3, Royal Asiatic Society Library, Mumbai.

furthermore, awareness programs were conducted in the mill districts on various aspects of health, and leaflets were distributed in various vernacular languages such as Hindi, Marathi, and Gujarati.[103] SSL also started classes on first aid, home hygiene, and basic nursing for the mill hands, in collaboration with the St. John Ambulance Association.[104]

As far as the sanitary rounds were concerned, they were conducted by the elite members of the society such as H. L. Kaji, a professor at Sydneyham College; K. J. Dubash, a lawyer; and S. K. Bole, a member of the Bombay legislative council.[105] A record of the sanitation round in the F ward noted the following:

> The slums of the Urbs Prima in India are really the hells of Bombay. The party was simply horror stricken at the sight of the standing nuisance. All the bylanes and the main lane were full of mud and filthy waters and at various places there were pools of water permanently breeding germs of Malaria and other diseases. The dark, ill ventilated chawls did not appear to have white washed for at least a decade. These conditions are a disgrace to a premier city in India.[106]

One aspect that separated the sanitary rounds conducted by the Bombay Sanitary Association with those by the Social Service League was that the League eventually began to acknowledge that there was a significant ignorance on the part of the colonial government and the Municipality. In an article published in *Navakal*, a Marathi daily newspaper in Bombay, the SSL identified 'informed ignorance' on the part of the Municipality in dealing with sanitation issues in the G ward.[107] The municipality paid no attention to the overflowing drains and the broken sewage pipelines in the Dadar- Elphinstone-Worli area, despite regular

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[103] *Social Service Quarterly*, July 1915, p. 24.
[104] *First Annual Report of the Social Service League*, (Bombay: Social Service League, 1912), p. 8.
[105] Introduction, Social Service League Bombay, Sanitation Department, Pamphlet no 1, Bombay Pamphlets, etc., Vol 3, Royal Asiatic Society Library, Mumbai, p. 7.
[106] First Sanitation Round, Sunday 13 August 1922, F Ward, Report of the Fourth Sanitation Round of the Social Service League, Pamphlet no 1, Royal Asiatic Society Library, pp. 19-20.
[107] *Navakal*, 11 April 1923.

complaints.[108] The volunteers of the League soon began to insist on the creation of adequate infrastructure for the labour force in the city. They wrote to the provincial and municipal bodies reminding them that the mill hands contributed towards the revenues of Bombay city.[109]

The work of carrying out sanitation rounds was divided between the Head Office and the Working Men's Institute of the League who managed the A, B, C, and D wards and E, F and G wards respectively.[110] After the rounds of sanitary inspection, the reports would be submitted by the sanitary inspectors to the BMC and the CIT.[111] Follow-up action by the volunteers of the League occasionally resulted in action on the part of these governing agencies. Otherwise, on most occasions they would complain about the 'lack of funds' available at their disposal towards maintenance of health and sanitation infrastructure in the city.[112] It is crucial to understand that these minor actions undertaken by the BMC and the CIT were insufficient to address the serious issues of overcrowding and insanitary conditions in the mill district of the city.

The League's activities in the field of public health and medical relief consisted of, first, setting up dispensaries in the mill district, second, working in close collaboration with industrialists to provide medical aid to the labour force, and third, work in the field of maternal and infant welfare.[113] A number of dispensaries were set up by the League: a Homoeopathic Charitable Dispensary in 1913 near Babula Tank,[114] the Bai Bachubai Dispensary in 1918 in Parel,[115] a dispensary for free eye treatment was set up at the

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[108] Ibid.
[109] Ibid.
[110] *Times of India*, 20 August 1923.
[111] Ibid.
[112] Proceedings of the Bombay Municipal Corporation, BMC, 1926, p. 261
[113] *Nineteenth Annual Report of the Social Service League* (Bombay: Social Service League, 1932), p. 14.
[114] *Second Annual Report of the Social Service League* (Bombay: Social Service League, 1913), pp. 13-14.
[115] *Times of India*, 11 September 1919.

Madanpura Settlement,[116] a fully equipped dispensary for members of the society at Elphinstone Road,[117] and the Jamshedji Jehangirji Dubash Homeopathic Charitable Dispensary at Chinchpokli, set up in 1943.[118] Furthermore, in 1921, the Parel Settlement of the League established the People's Medical Relief Society. It was then handed over to the Bombay Working Men's Institute of the League in 1924.[119] The major aim of the society was to provide for medical aid to lower income families on a cooperative basis.

The high infant and maternal mortality rates were a matter of grave concern, especially among the industrial labour force. In addition, the price of milk was steep and instances of its adulteration were common in the city.[120] Pure and unadulterated milk was considered to provide infants and children with the essential nutrients required for optimum growth. Therefore, the SSL identified that control over the distribution of pure milk was crucial and they began to distribute milk, free of charge, to the poor children treated at the Bai Bachubai Dispensary. This was made possible due to the sponsorship provided by the Arya Mahila Mandal.[121] As far as welfare measures for the expectant mothers were concerned, awareness was generated through lectures at League's Madanpura Settlement and a number of homely talks undertaken by the volunteers.[122] The volunteers played a crucial role in urging the expectant mothers to visit maternity hospitals and take benefit of the Infant Welfare Centres in the city.[123] These awareness programs were aimed at teaching the labour population 'appropriate' methods involved in the process of maternal and infant welfare.

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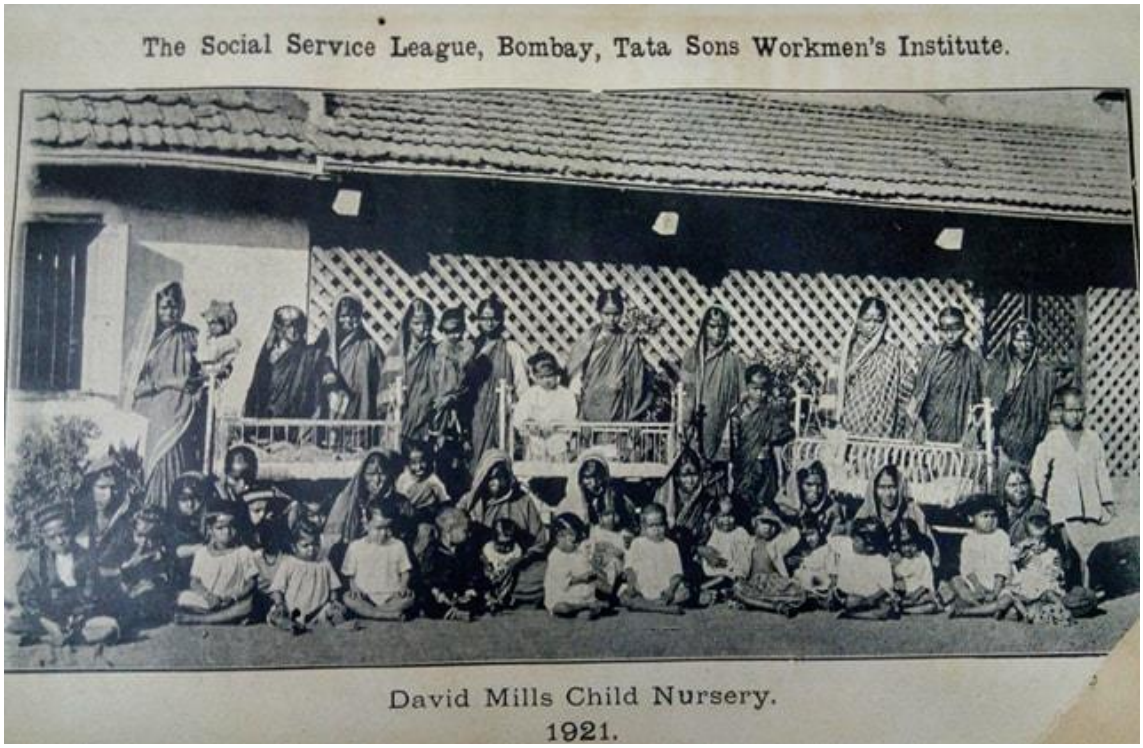
116 *Twenty-sixth Annual Report of the Social Service League* (Bombay: Social Service League, 1938), p. 23.
117 *Thirteenth Annual Report of the Social Service League* (Bombay: Social Service League, 1925), p. 19.
118 *Thirty-second Annual Report of the Social Service League* (Bombay: Social Service League, 1944), pp. 18-19.
119 *Thirteenth Annual Report*, p. 19.
120 'The Condition of the Children of Bombay Mill Operatives', in *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1925), Vol. III, Issue 9, p. 856.
121 Ibid.
122 *Twelfth Annual Report of the Social Service League* (Bombay: Social Service League, 1924), p. 25.
123 Ibid.

The SSL worked in close collaboration with the various industrial houses in the city. At the Currimbhoy group of mills and at Tata mills, the League, through the respective Workmen's Institutes, identified sick employees and visited them at their homes to provide them with medical relief.[124] Furthermore, every other centre of social work under the League would regularly monitor the medical needs of the surrounding localities by getting people admitted to suitable public hospitals and dispensaries.[125] Until 1922, for the benefit of working women, the League managed two creches, or day-nurseries, in Bombay. The first was at the Currimbhoy Ebrahim Workmen's Institute and the other at the David Mill Centre of the Tata Sons Workmen's Institute.[126] In 1923, another crèche was opened at the Swadeshi Mills.[127]

[124] *Twenty-First Annual Report of the Social Service League* (Bombay: Social Service League, 1933), p. 4.
[125] Ibid.
[126] Social Service League, "Report for the Quarter ending June 1923", *Social Service Quarterly*, January 1923, p. 13.
[127] Ibid.

Figure 11: Picture of the David Mills Child Nursery operated by the Social Service League.[128]



[128] *Eleventh Annual Report of the Social Service League* (Bombay: Social Service League, 1922).

Since the early 1910s, the League also organised fresh air excursions for the mill hands and their families.[129] Through this initiative, the SSL sought to provide the labour force in the city with an opportunity to enjoy the beauty of nature and appreciate the same. The idea of fresh air excursions was borrowed from various Western countries. In England especially, a number of social welfare institutions had started Fresh Air Funds, the Children's Country Holidays, and School Sports for the families of the mill hands. Some of these programs were first implemented for the children of mill workers in the city of London.[130] The League followed the example and organised excursion for poor children and mill hands in Bombay to some sea side or a country place as a part of the Fresh Air Excursion. The reports of the League mentioned some of the places visited, for example - Jogeshwari Caves, Vihar Lake, Juvem, Elephanta Caves etc.[131] Events of such nature were sponsored by various wealthy families in the city or by prominent business houses such as the *Times of India*.[132]

After 1935, the League expanded its outreach into the suburbs. Two important centres established by the League in the northern part of the city were in Bandra and Vile Parle.[133] It becomes evident by the nature of programs implemented by the SSL that it looked at the labour force in the city as mere recipients of social welfare and upliftment. The industrial workers were deemed incapable of voicing their hardships and therefore it was the prime responsibility of every educated or upper-class citizen to come forward to give a voice to the sufferings of the industrial labour force in Bombay. In the various actions undertaken, the idea of sympathy was far more evident than that of empathy. Instead of providing the 'depressed' classes with equal agency, paternalistic programs were implemented as part of a program of social welfare measures. Furthermore, the idea of social service was used as a

[129] *Third Annual Report of the Social Service League*, p. 21.
[130] Ibid.
[131] Ibid, p. 22.
[132] Ibid, p. 21.
[133] *Times of India*, 5 March 1936.

non-violent and peaceful political tool to counter militancy within the labour class in the city during the early twentieth century.

iii) The King George V Anti-Tuberculosis League

While diseases like plague, malaria, cholera, and small pox were responsible for high mortality rates amongst the mill hands, the death rate from tuberculosis was particularly high. The civic leaders identified 'overcrowding, insufficient ventilation, insanitary conditions and unwholesome food' as the major reasons for the spread of the disease in Bombay.[134]

Table 4.3: Death rates from tuberculosis per 1,000 people in the cities of Bombay, Calcutta, Manchester, and Glasgow.[135]

City	Death rate from tuberculosis per 1,000 persons
Bombay	2.92
Calcutta	2.50
Manchester	2.27
Glasgow	2.17

Therefore, the King George V Anti Tuberculosis League was set up in April 1912. This was made possible due to the generous donations by the industrial philanthropist Ratan Tata, for the control of tuberculosis in the city to commemorate the visit of the Emperor and Empress and the Coronation Durbar.[136] Dr J. A. Turner, the Executive Health Officer for Bombay city, claimed with pride that the King George V Anti-Tuberculosis League was the first of its kind in India.[137]

In the initial years, the League functioned from a central dispensary in the city, which also housed an information bureau for the treatment of tuberculosis. Since its inspection, the League aimed to establish a number of dispensaries in areas where the mill workers lived. In

134 General Department, File no 156, 1912, MSA.
135 Ibid.
136 *Times of India*, 9 December 1918.
137 John A Turner, 'The Anti-Tuberculosis Campaign in Bombay, India', *The British Journal of Tuberculosis*, 9:2 (1912), pp. 51-55.

1915, it opened a second dispensary in Kamathipura, an area occupied by the lower-caste industrial working population.[138] The dispensaries worked in close cooperation with the Municipality. However, despite the establishment of the Anti-Tuberculosis League, it is important to note that until 1918, only two doctors and three nurses were employed exclusively to manage the cases of tuberculosis in the city.[139] For a city like Bombay, these numbers were severely inadequate to deal with the demands of the population. Therefore, at the annual meeting of the League in April 1918, a need for a sanatorium of 200 beds was strongly felt to cater to the advanced cases of tuberculosis in Bombay.[140]

A sanatorium with twenty beds was opened at Ainha Mahal, Bhoiwada due to the generosity of the Turf Club and the colonial state.[141] While speaking at the opening ceremony, Dr. Turner urged the employers of labour in the city to contribute towards the cause. This was because the capitalists had remained unresponsive to the appeal for funds when the plan for sanatorium was under consideration. Turner said:

> I beg them to realise that whatever they will do to promote the health and vitality of their workmen will add enormously to the efficiency of their men in whatever industry they may be engaged.[142]

In addition to the lack of support from the mill owners, Turner expressed a sense of hopelessness in the unhealthy conditions that existed in the insanitary chaws built by the BCIT. These chawls were damp, dark, and dirty, and therefore - he believed -contributed significantly to the spread of the disease when coupled with malnourishment.[143] Women and

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138 Ibid.
139 *Times of India,* 13 April 1918.
140 Ibid.
141 Ibid.
142 Ibid.
143 General Department, File no 922, 1920, Anti Tuberculosis League, Brief Resume of its Origins and Work, 1913-1916.

children residing in the chawls had poor resistance compared to the male population and therefore succumbed faster to the infection.[144]

Table 4.4: Patient profile at the Tuberculosis Dispensaries in Bombay in 1921.[145]

Communities	Male	Female	Total
Hindu	237	203	440
Muslim	122	210	332
Parsi	39	71	110
Christian	66	49	115
Jewish	3	7	10
Total	467	540	1007

The League also undertook educational campaigns to create awareness about the diseases among the mill hands. The organised lectures in a number of vernacular languages such as Marathi, Gujarati, and Urdu. Magic Lantern slides were used to effectively convey the message to the masses.[146] However, these educational campaigns received significant criticism from the elites in the medical profession. Sorab Engineer, during the course of presenting a paper at the Bombay Medical Union, identified that the educational programs were both rarely organised and were poorly attended by the mill workers in the city. Instead, he advised the colonial authorities, the BMC, and the BCIT to improve the state of housing in the mill district, implement strict policies against spitting in the open, establish dispensaries, and conduct regular inspection of various localities.[147]

The Anti-Tuberculosis League continued its work into the post-independence period and the Bhoiwada sanatorium was later merged with the Maratha hospital to form the Tuberculosis Hospital in 1948. Other than contributing to the establishment and maintenance of the medical infrastructure for tuberculosis, the BMC and elites in the city did

144 Ibid.
145 Annual Report of the Municipal Commissioner for Bombay 1921- 1922, Part II, p. 23.
146 Ibid.
147 Sorab Engineer, 'Some factors necessary for the prophylaxis of tuberculosis in Bombay', Report of the Bombay Medical Union, 1911-12, Bombay, 1912, pp. 89- 99.

very little to improve the living conditions of the mill workers. The opening up of the congested localities with systematic planning, increasing the wages of the mill workers, and the provision of parks and open spaces, would have gone a long way in controlling tuberculosis.

iv) The Young Men's Christian Association

Along with the BSA and the SSL, another organisation that worked in the field of health and sanitation for the mill hands in the city was the Young Men's Christian Association (YMCA). This movement began in nineteenth-century London. Soon thereafter, it spread across the globe and acquired a transnational character. In 1857, the first Indian YMCA was set up in Calcutta.[148] However, it was only in the early twentieth century that the YMCA of India began to work with the industrial labourers. Similar to the Social Service League, the YMCA had a 'desire to help men and boys' of the city of Bombay, and saw an 'opportunity for real service for the betterment of the needy and ignorant people' who resided in the 'unliveable, dirty and dark' mill district.[149]

Initially, the work of YMCA was concentrated in the G ward, where the BDD chawls housed approximately 16,000 people.[150] Their focus was largely on the organisation of recreational and physical training programs, both for the industrial workers and their children. The YMCA believed that 'the lack of insufficient exercise in the open air is deleterious to the health and physique' of an individual.[151] In 1925, YMCA started their industrial welfare programs at Naigaum, a crowded locality in the mill district. The work of the YMCA was supported by the philanthropists and a few grants from the BMC. Like the SSL, the YMCA started night classes, general lectures - organized on topics associated with

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[148] Official website of YMCA: http://www.ymcaindia.org/index.php/about-us/history-and-growth (accessed 12 September 2018)
[149] *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1923), Vol. VI, Issue 3, p. 235.
[150] Ibid.
[151] *Indian Daily Mail*, 31 October 1924.

health and well-being of the masses -, and a library and gymnasiums were set up with an aim to govern the free time of the mill hands.[152] The management of the YMCA believed strongly that workers' alienation in the city affected their work in the mills, led to inefficiency, and made it 'exceedingly difficult to produce finished goods that will compare favourably with those made by the skilled workmen of Europe'.[153] The 'welfare' programs initiated by the Association 'aimed to counter this alienation and create more efficient and contented workers'. Furthermore, the management believed firmly that 'these methods would keep workers away from "unscrupulous" agitators'.[154]

v) Initiatives from government agencies

As far as government agencies were concerned, there was a systematic failure on their part in executing plans associated with health and hygiene in the industrial working areas of the city. Financial conservatism on the part of the colonial state and the BMC resulted in insignificant moves following the bubonic plague of 1896 and influenza epidemic of 1918 (see Chapter One and Two). There were repeated occurrences of various diseases and they continued to have a significant impact on the mortality figures in the city. The government agencies conveniently transferred the blame to what they saw as the insanitary habits of the labour class as the main reason for existence of disease and overcrowding in the mill land.

In the early 1920s, colonial authorities began to pay attention to the health of the mill hands in Bombay. However, there were two major agendas behind the same: the government authorities feared the active involvement of the labour force in the freedom struggle and to increase the efficiency of the labour force, which would in turn help the economy grow. Therefore, after the end of the First World War, the Government of Bombay set up a Labour

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[152] Srivastava, *The Well-Being of the Labor Force in Colonial Bombay*, pp. 135-36.
[153] Ibid, p. 136. (These statement have been made in the official records of the YMCA. See YMCA International Survey, India, Burma and Ceylon, Vol. 2, Chapter 2, Kautz Family YMCA Archives, University of Minnesota, Minneapolis, p. 137.).
[154] Ibid.

Office in 1921.[155] The colonial state considered it to be a crucial step in studying and regulating the labour force of Bombay. The *Labour Gazette*, an official monthly publication of the Labour Office soon became an important source of information for matters related to the industrial working class in the city. That same year, the BMC decided to undertake a detailed investigation into the mortality rates in the city with a particular focus on the working classes. This was one of the earliest attempts in the city to understand the correlation between mortality figures, class disparities, poverty, and access to healthcare infrastructure in the city.

J. Sandilands, the Health Officer for Bombay, selected the years between 1913 and 1917 for the study because this was the only quinquennial period of the early decades of the twentieth century that was relatively 'healthy' for the city.[156] During this time the city was not subjected to any major epidemic. In order to understand the relationship between the economic status and mortality, he selected three areas - Chaupati, Parel and Umerkhadi - to make a comparative analysis.[157] Chaupati was largely occupied by the upper class, Parel was a residential area for the mill hands and Umerkhadi was a typical slum occupied by the poor class in the city.[158] The results from the survey conducted suggest that there was a clear connection between the economic status of an individual and mortality rates. Furthermore, it was clear that the epidemic and infective diseases continued to play their part in adding to the mortality figures despite the absence of any major epidemic in the city.

[155] *Bombay Labour Gazette*, Vol. II, Issue 2, p. 8.
[156] *Bombay Labour Gazette*, Vol. I, Issue 2, p. 14.
[157] Ibid.
[158] Ibid.

Table 4.5: Average annual death rate for Umerkhadi, Parel and Chaupati in the years between 1913 and 1917.[159]

	Umerkhadi	**Parel**	**Chaupati**	**Bombay City**
Average annual number of deaths per 1,000 living persons	40	29	25	31

Table 4.6: Death rates by groups of diseases in sections, compared with the death rate from all causes in Bombay taken as 1,000.[160]

	Umerkhadi	**Parel**	**Chaupati**	**Bombay City**
Diarrhoeal diseases	117	91	56	100
Plague, Small Pox, Measles	79	109	42	85
Malarial and other fevers	92	118	45	78
Tuberculosis	89	30	74	64
Respiratory Diseases	412	303	187	302
Other causes	528	314	382	371
All causes	1317	965	786	1000

As mentioned in the Labour Gazette, 'respiratory diseases were a major determining factor in rendering the death rate of Umerkhadi and Parel notably higher than those of an upper class residential district such as Chaupati'.[161] The two main causes of the high death rate from the respiratory group of diseases were identified as 'breathing of foul air in overcrowded and ill ventilated homes or workshops and the breathing of air laden with dust'.[162]

[159] Ibid.

[160] Ibid.

[161] Ibid, p. 15.

[162] Ibid.

Table 4.7: The effect of overcrowding on the death rate in Umerkhadi, Parel and Chaupati.[163]

	Umerkhadi	**Parel**	**Chaupati**
Percentage of population living in rooms containing 6 or more persons…	33	27	20
Annual death rate…	40	29	25

Though the colonial authorities focussed only on the class dimension, there was evidently also a caste dimension associated with the mortality figures. From the statistical evidence above, it is clear that the slum areas saw the highest mortality rates. The non-Brahmin upper caste population resided in and around Parel, while the surrounding slum areas such as Umerkhadi, Sewri, Kamathipura, etc., were largely occupied by the lower caste population. The BMC refrained from taking this into consideration for obvious political motives. In addition, municipal politics was largely dominated by the elites in the society, with little or no representation from the lower ranks of the society. This meant that the problems faced by the lower caste often went unnoticed in the BMC.

Though a detailed investigation was undertaken by the BMC, there is no evidence available about the actions taken to address the problem. While addressing the municipal councillors at the BMC in December 1923, the Governor of Bombay, Leslie Wilson, also identified an inadequacy of hospital accommodation in the city with a particular focus on the industrial working population.[164] He stressed that it was crucial to address the imbalance in the ratio of hospital accommodation to the labour population, as Bombay was a key industrial city in colonial India.[165] There were approximately 200,000 factory workers in the city, out of which nearly 151,000 were employed in the cotton textile industry.[166] The problem of high

163 Ibid.
164 *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1924), Vol. III, Issue 4, p. 7.
165 Ibid.
166 Ibid.

mortality rates in the mill district of the city continued to be a pressing issue, and the BMC continued to ignore the same. There was no noticeable change in the policy making process or the system of governance to reduce the mortality rates in the poorer localities of the city.

Another important aspect associated with the health of the labour class was the food of the worker. In 1921, the Labour Office and Parel Institute of Research initiated an 'Enquiry into Working Class Budgets in Bombay'.[167] The results suggested that the mill workers' diet lacked adequate nutrients required for healthy living due to the lack of financial resources.[168] However, low wages continued to be a pressing problem with the mill workers and this was a fundamental reason for most of the industrial strikes that took place in Bombay during the interwar period. The mill owners displayed lack of enthusiasm towards the demands of the labour force, as there was no shortage of industrial labour available in the city.[169] An article published in the *Labour Gazette* suggests there was a bigger agenda behind these enquiries: the general and industrial efficiency of the worker, which had a direct impact on profits and thereby gross national income.[170] A healthy working class population was crucial to enhance the productive capacities of the nation's workforce and therefore a study of such a nature would prove beneficial to the colonial state.

The colonial state felt a strong need to regulate and control the lives of the mill workers, as the Indian national movement began to gain momentum. Three decisions taken by the government between 1921 and 1924 strengthen the argument. The first decision was the recruitment of 'trained social investigators on an urgent basis' following a plea made by Lady Tata for 'a more scientific and sympathetic study into the causes determining the lives of the industrial workers in Bombay'.[171] This plea was made at a lecture on 'Industrial Welfare

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[167] *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1925), Vol. IV, Issue 8, p. 833.
[168] *Bombay Labour Gazette*, Vol. I, Issue 2, p. 16.
[169] Chandavarakar, *The Origins of Industrial Capitalism in India*, p. 257.
[170] *Bombay Labour Gazette*, Vol. IV, Issue 8, p. 833.
[171] *Bombay Labour Gazette*, Vol. I, Issue 2, p. 41.

in Bombay' organised by the Labour Office.[172] The trained social investigators were hired to conduct research and provide guidance to the industrial owners and voluntary agencies working towards the welfare of the mill hands.[173] The second event was the organisation of an All-India Industrial Welfare Conference in Bombay on 6 April 1922. This conference was organised by the colonial state and was presided over by Mr. A. C. Chatterjee, Secretary to the Government of India, at the Department of Industries. Among the various topic discussed at the event, health, hygiene and sanitation of the industrial labour were key priorities.[174]

The third decision was made in August 1924 when the Labour Office, to gain greater control on the activities and programs implemented at various mills, requested the six leading mill groups in Bombay to submit an account of the welfare activities on a regular basis.[175] The *Labour Gazette*, the official publication of the Labour Office, claimed that the reports submitted would not only enable the organisation to maintain a record of the various initiatives undertaken by the employers but also provide information to the various bodies working in the field of labour welfare.[176] Further, the Labour Office added that 'the accounts actually sent are published verbatim...., and will; it is hoped, to serve to dispel any idea that may be prevalent in other countries that the Bombay mill hands are not looked after by their employers'.[177] However, the series of events outlined above suggest that social welfare organisations, with a particular focus on health and sanitation in the city, were greatly endorsed by the government agencies.

By providing them with recreational activities and organising informal educational health programs, the voluntary organisations tried to occupy worker's leisure time. The

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[172] Ibid.
[173] Ibid.
[174] *Bombay Labour Gazette*, Vol. II, Issue 8, p. 14.
[175] *Bombay Labour Gazette*, Vol. IV, Issue 1, p. 41.
[176] Ibid.
[177] Ibid.

programs and activities initiated by the social service organisations were used as a means by the government to control, regulate and discipline the mill population. By doing so, the colonial state desired to keep the labour force away from actively supporting and participating in the national movement for independence. Apart from supporting the activities of the various welfare organisations in the city, the government also collaborated with the industrialists to provide social amenities for the industrial labour. Recreational centres were established in the midst of the residential areas occupied by the working classes, so as to enable them to take full advantage of the facilities at these centres. An example of this was the 'Rambilas Anandilal Podar Recreation Centre' at DeLisle Road, Bombay, founded in 1938. It was built from a financial aid provided by Mr Ramnath Podar, the Managing Director of Toyo Podar Mill in Bombay. Soon thereafter, the government proposed to construct similar pavilions at Naigaum and Worli in Bombay.[178]

The tenth International Labour Conference was held in Geneva in 1927 and a convention for the provision of sickness insurance was passed at the event. According to the convention, it was necessary on the part of the public authority to provide for sickness insurance to workers employed in industries. A discussion was initiated in the Bombay Legislative Assembly over the implementation of the convention in Bombay Presidency. Bhupendra Nath Misra, a Member of Industries and Labour, moved a resolution in the Legislative assembly against the idea of sickness insurance.[179] He provided three reasons for the move. First, labour was migratory in nature and therefore he thought that workers would travel to the countryside if they became ill; second, his belief in indigenous systems of medicine; and third, he viewed that the industrial workers themselves opposed any system that involved deductions from their pay.

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[178] *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1940), Vol. XVIII, Issue 4, p. 273.
[179] *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1928), Vol. VII, Issue 9, p. 791.

Mr N. M. Joshi countered the views expressed by Mr. Misra. He was of the opinion that an insurance scheme would work in the favour of the industrial labourers as it would protect them during the period of sickness, and therefore it was crucial.[180] He further argued that labourers in Bombay were not migratory in nature, and even if they were, it would not have a significant impact on the insurance scheme.[181] Considering the range of health issues the industrial working class in Bombay faced, and the associated mortality rates, a sickness insurance scheme would have proved beneficial for the city. However, the colonial authorities did not display enthusiasm for its implementation of the same and therefore the resolution passed by Mr. Misra stood in the assembly.

In an attempt to exert greater control, in 1937, the colonial appointed a committee of the Political and Reforms Department to undertake a study into the lives of the textile mill workers in the Presidency. This study took the shape of the Bombay Textile Labour Inquiry Committee Report and was submitted to the government on 27 July 1940 and was published in June 1941.[182] The colonial state identified the report as a 'monumental work' which would benefit both the textile workers in the Presidency and all across colonial India. A report of such status would enable implementation of better policies for the textile mill workers in Bombay.[183] A considerable portion of the report was focussed on the health of the mill hands. The inquiry was carried out with a particular focus on the provision of medical infrastructure and facilities of rest and recreation for the workers.

The committee identified a significant shortfall of beds in the public hospitals.[184] In Bombay, although there was a considerable expansion of hospital beds during the interwar period, they found the provision was largely inadequate for the growing population. To

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180 Ibid, p. 792
181 Ibid.
182 *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1941), Vol. XX, Issue 10, p. 842.
183 Ibid, p. 843.
184 Ibid, p. 856.

address the issue, the committee suggested that the employer pay a moderate fee to the colonial state for admission and treatment of their labour in government hospitals. Further, the report stated that the medical work undertaken at the mills focused on curative aspects rather than the preventive approach. The committee believed that the preventive approach would go a long way towards ensuring the good health of the industrial working population.[185] In addition, they made a number of recommendations to the employers of labour in the city to improve the existing state of medical infrastructure in their mills. Their first recommendation was that the industrialists should improve the existing standards of the mill dispensaries and start a compulsory sickness insurance policy for all the workers. Secondly, that mill owners should conduct periodical medical examinations of all their labourers, especially of those engaged in processes prone to cause occupational diseases.[186] Thirdly, that a committee should be established of all mill doctors at major cotton textile centres across the Bombay Presidency. The purpose behind this was the collection of information on existing medical welfare practices, to secure improvements wherever necessary and to exchange ideas.[187]

As far as facilities of rest, refreshment and recreation were concerned, the committee advised all the mills to provide for dining rooms and rest shelters. Mills that employed more than 50 female workers were required to set up separate retiring rooms for women. The infrastructure for rest and refreshment was supposed to be of 'the standards prescribed by the Chief Inspector of Factories'.[188] The committee also recommended the establishment of canteens and tea stall by cooperative societies of the employees or by the employers. It was important that the employers did not make profit from the canteens and the tea stalls, as these provisions were meant purely or the benefit of the labour force. The report suggested

[185] Ibid.
[186] Ibid, p. 857.
[187] Ibid.
[188] Ibid.

that the inquiry committee was keen on modifying the Factories Rules, to ensure that it was made compulsory for all factories 'to arrange for an adequate supply of cool drinking water' in every department of the textile mill.[189]

They believed that adequate leisure time was required to improve the efficiency of the labourers while engaged in their work. As such, the committee urged that 'no attempt should be spared by the government, local government and the trade unions' to set up facilities such as gardens and gymnasiums for the purpose of recreation of the labour.[190] The report mentions that the expenditure incurred by the mill owners towards the setting up of such facilities was 'a move in the right direction' and would help in 'securing a healthier body of workers' in Bombay. Rest, refreshment, and recreation were considered crucial by the inquiry committee for the wellbeing of mill hands. However, the final report was just a compilation of numerous suggestions and recommendations for the mill owners. It conveniently transferred the entire responsibility of labour welfare on the industrialists, with no focus on the share of the colonial state in the same.

III. CONCLUSION

The first half of the twentieth century was both a period of prosperity for the city of Bombay and also of numerous challenges. While the mill owners made tremendous profits during the two World Wars, the intervening years were difficult for the industrial working class. It was the same time that ideas of self-improvement and self-reliance found a prominent place in the nationalist discourse. These ideas had a significant impact on the elites in Bombay who strived to 'uplift' the lower ranks of the society through various social programs. This resulted in the establishment of a number of voluntary organisations by the elites in the twentieth-century colonial Bombay. Most programs implemented by the social welfare organisations

[189] Ibid, p. 858.
[190] Ibid.

were paternalistic in nature and consistently identified the industrial working class as 'ignorant' objects of reform. Furthermore, 'medical metaphors abounded in the rhetoric of the freedom movement, equating bodily health with national health, and the presence of disease with the sickness and decay of colonial authority'.[191]

Prominent social welfare organisations in the city such as the Social Service League and the Young Men's Christian Association looked towards the West for ideas related to the social welfare of the industrial working class. There was also a growing international pressure on the colonial state. This pressure forced the government to consider the conventions passed by the International Labour Organisation, and consider implementation of the same in colonial India. Since the government was not keen on investing in the health and welfare of the labour class, it encouraged the activities of the various voluntary organisations in the city. By doing so, the government portrayed to the world, that the health and welfare of the labourers in Bombay was a priority for the state. Apart from the encouragement provided to the social welfare institutions, there were several enquiries undertaken by the Labour Office on the industrial working class. The conclusions from these enquiries seldom resulted in significant policies changes to improve the conditions of the workforce in the city. Instead, these enquiries were used to understand and to increase the productive capacities of the workers for larger economic gains.

Over the course of the interwar period, though the social welfare activities acquired a more secular character, caste remained a persistent blockage even as social interventions into the lives of the working poor intensified. A number of projects initiated by the social service organisations were designed to further emphasize on the existing caste hierarchies in the society. One of the major reasons for the same was the lack of adequate representation

[191] Sunil Amrith, 'Political Culture of Health in India: A Historical Perspective', *Economic and Political Weekly*, 42:3 (2007), pp. 114-121 at p. 115.

of the lower-caste communities on the decision-making committees. These committees were dominated by both the upper-class and upper-caste representatives, who came with their own set of biases. It was only with the rise of Dr Ambedkar as a leader in the 1930s, that a strong voice was provided to the issues of the Dalit population in Bombay. Dr Ambedkar firmly believed that welfare and reform activities initiated towards addressing social inequalities would prove effective, only when accompanied by a change in the mindset of the general population. The social service organisations in Bombay were unable to attain equality of dignity, a core value associated with social reform. Therefore, breaking through the caste barriers continued to remain as a fundamental challenge in social service.

Last but not least, it is important to note that most of the health welfare programs were designed for male labourers. Women were not acknowledged in these welfare programs as the industrial workforce contributing to the economic growth of the city. Instead the women were recognised only for their reproductive capabilities and this was visible in the wide range of maternal and infant welfare programs. These subjects of maternal and infant welfare are considered in the following chapter.

CHAPTER FIVE

Maternal and Infant Health in the City (1914- 1945)

By the 17th century, pregnancy and childbirth became a point of interest in the emerging medical communities across the globe.[1] But it was only in the 19th century, that childbirth entered the medical field and began to be identified as a medical event.[2] This paved the way for a process that is now referred to as the 'medicalization of childbirth'. This continued to expand through the 20th century across the globe resulting in a significant decline of maternal and infant mortality figures.[3]

Table 5.1: Infant mortality rate per 1,000 (IMR) in Bombay City (1901-1943).[4]

Year	**IMR**	**Year**	**IMR**	**Year**	**IMR**	**Year**	**IMR**
1901	574	**1910**	414	**1918**	590	**1930**	296
1902	543	**1911**	380	**1919**	653	**1931**	272
1904	459	**1912**	448	**1920**	552	**1932**	218
1905	557	**1913**	381	**1921**	667	**1936**	249
1906	535	**1914**	385	**1922**	403	**1937**	245
1907	424	**1915**	329	**1923**	411	**1938**	267
1908	450	**1916**	388	**1928**	311	**1939**	211.7
1909	405	**1917**	410	**1929**	298	**1943**	198

A similar trend can be identified for the city of Bombay in the period between 1890 and 1940. Maternal and infant mortality rates in Bombay were amongst the highest across the globe in the late 19th and early 20th century. With the medicalisation of childbirth in the 20th

[1] Heather Cahill, 'Male Appropriation and Medicalization of Childbirth: An Historical Analysis', *Journal of Advanced Nursing*, 33:3 (2001), pp. 334-342 at p. 335.
[2] Ibid, p. 336.
[3] Ibid.
[4] Priyanka Srivastava, *The Well-Being of the Labor Force in Colonial Bombay – Discourses and Practices* (London: Palgrave Macmillan, 2018), p. 158.

century and increasing awareness amongst the population, there was a visible reduction in the mortality rates for Bombay city. By the end of 1930s, Bombay had become a pioneer in the country for maternal and infant welfare.

Since the early decades of the twentieth century, the colonial state and the voluntary organisations initiated a number of reforms towards medicalization of childbirth and 'improvement' in infant welfare practices. Mridula Ramanna's work traces the development of maternal and infant welfare infrastructure in the 19th and early 20th century Bombay.[5] However, very little information is available to us for the inter-war period. In this chapter, I will trace the development of maternal and infant welfare infrastructure in first half of the twentieth-century Bombay. First, I will argue that until the late 19th century, the colonial authorities had done little to improve the condition of mothers and infants in the city. It was only in the early decades of the 20th century that the Bombay Municipal Corporation decided to make a significant intervention in this matter. This was mainly due to three reasons: maternal and infant mortality rates were rising at an alarming rate in the city, there was an emerging opinion among influential elites to improve the conditions of women and infants and the events in international politics pressurized the government authorities to address the issue.

Second, the twentieth century also saw an active collaboration on the part of the municipality with voluntary organisations in the city. It was these voluntary organisations that were crucial in breaking barriers of class and caste and providing maternal and infant welfare to women and children in the poorer classes of the city. Third, the philanthropic section played a crucial role in the creation of medical relief infrastructure, through their generous financial aid. While the colonial state promoted the 'medicalization of childbirth'

[5] Mridula Ramanna, 'Maternal Health in Early Twentieth Century Bombay', *Economic and Political Weekly*, 42:2 (2007), pp. 138-144. And Mridula Ramanna, 'Women Physicians as Vital Intermediaries in Colonial Bombay', *Economic and Political Weekly,* 43:12 (2008), pp. 71-78.

as one of the achievements of colonial rule in India, the colonial authorities did little to fund the various healthcare projects aimed at maternal and infant welfare. Despite the efforts taken by private philanthropists, the maternal and infant welfare programs face significant limitations due to the financial conservatism displayed by the colonial state. Finally, this chapter will also throw light on the work undertaken by the local leaders to secure maternity benefits for the industrial working women in the city.

I. HIGH INFANT MORTALITY RATES IN INTER-WAR BOMBAY: AN ANALYSIS

As displayed in the table 5.1, maternal and infant mortality rates were high throughout the late nineteenth century. For the inter-war period the highest infant mortality rates recoded were 572 per 1000 live births in 1918- 1919, and 667 per 1000 in 1920- 1921.[6] Though the influenza pandemic played a significant role in the high infant mortality rates recorded for the city in the period 1918- 1921, they were still higher that most other countries around the world. In 1921, Bombay city had the highest infant mortality rate across the globe.[7] Since the early decades of the twentieth century, the government was of the opinion that the statistical evidence did not portray an accurate picture of the infant mortality rates in the city as a large number of births and deaths were not registered with the government.[8] Another major consideration was the temporary migration amongst the pregnant women.[9] It was a common practice amongst Indian women to move from their place of residence to their parents' home at the time of childbirth. This meant that the birth or death of an infant would be registered in another district and not for the city of Bombay.

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[6] *Times of India*, 26 February 1925.
[7] Ibid.
[8] Annual Report of the Executive Health Officer, Municipal Corporation of Bombay, Central Government Press, 1905, pp. 180- 81.
[9] Ibid.

Notwithstanding potential issues with the accuracy of official statistics at the time, there is no doubting the scale of the problem. Even if another 5,000 births per year were added to the number of registered births in the city, the death rate recorded in 1921 would only have fallen to 528 – instead of 667 – per 1000. In either case the figures were without parallel in India or in Europe.[10] In Europe, the statistical data available shows that the infant mortality rate ranged from 100 per 1000 live births in countries such as Norway or Sweden, to 250 per 1,000 in countries such as Germany, Austria, or Russia. By the 1950s, this rate had declined considerably to 50 per 1,000 in most countries.[11] There is, however, convincing evidence to show that this excessive death rate was due to the continuance of influenza among children after the 1918 epidemic. By correction for mofussil births this figure would be still further reduced to a rate of 308 deaths per 1,000 infant lives at risk during the year. This unfortunately is the best that could be said for infant mortality in the city of Bombay.

The colonial authorities in their various records have identified the causes for high maternal and infant mortality rates to be the debility of the mothers, early marriages, maternal ignorance, the habit of covering up newly born infants, ill ventilated spaces, use of '*bal golis*'[12], low standards of living, unsanitary conditions and malnourished pregnant women and infant.[13] It was also observed that the epidemic outbreaks of plague, small pox, cholera and influenza, would raise general mortality and therefore a parallel rise was visible in the death rates amongst infants.[14] All of the causes identified by officials, put the blame on the ignorance of native population and the economic conditions of the expectant mothers. The government authorities seldom focussed on the lack of adequate medical relief infrastructure

[10] Carlo Corsini and Pier Viazzo (eds.), *The Decline of Infant Mortality in Europe – 1800-1950 – Four National Case Studies* (Florence: UNICEF, 1993), pp. 8-9.
[11] Ibid, p. 9.
[12] *Bal Golis*- Opium pills
[13] *Times of India*, 19 December 1922.
[14] Mridula Ramanna, 'Maternal Health in Early Twentieth Century Bombay', *Economic and Political Weekly,* 42:2 (2007), p. 139

and policies regarding maternal and infant welfare in the city. It is important to consider that for a populous city such as Bombay, only a handful of public maternity hospitals and dispensaries were in existence till 1922; and second, that there were no maternal and infant welfare schemes implemented by the colonial state until the 1920s.

Table 5.2: Maternity Hospitals and Dispensaries in Bombay (1851-1922).[15]

Year	Institutions	Outreach
1851	Obstetric Institution/ Bai Motlibai Wadia	General admission
1886	Cama Hospital Jaffar Suleman Dispensary	General admission
1887	Parsi Lying in Hospital	Parsi Community
1892	Sir Dinshaw Manekji Petit Hospital Dwarkadas Lullabhai Dispensary	General admission
1902	Masina Hospital	Parsi Community
1913	Lohana Dispensary and Lying in Hospital	Lohana Community
1912	Lad Aushadhalay	Upper Caste Hindu Women
1918	Sakinbai Moosabhoy Jaffarbhoy Maternity Hospital	Khoja Community
1922	Khatau Makanji Bhatia Maternity and Nursing Home	Bhatia Community

The patient profile of hospitals in the nineteenth and early decades of twentieth century also reveals that male patients numbered more than female patients in all general hospitals. One of the important reasons was that the healthcare system was largely male oriented;[16] the colonial state paid little attention to the medical care of women in India. If hospitalization for women was even considered in the late nineteenth century, it was largely due the high maternal and infant mortality rate in the city. Further, the reluctance of the colonial state to fund hospitals and dispensaries affected the development of healthcare infrastructure in the city. A glance at the table mentioned above makes it evident that most

[15] The table has been prepared by referring to the data mentioned in - Mridula Ramanna, *Health Care in Bombay Presidency, 1896-1930* (New Delhi: Primus Books, 2012), p. 93.
[16] David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Berkeley: University of California Press, 1993), p. 254.

of the general hospitals and dispensaries were also endowed by the wealthy in the city.[17] It was the private philanthropy that took extensive efforts to establish and expand maternal and infant welfare infrastructure in Bombay. The colonial state only paid towards the maintenance of these hospitals.

An article published in the *Times of India* highlights that in 1912 the infant death rates in the poor parts of the town were as follows:[18]

Table 5.3: Infant death rate in the poor parts of Bombay.

Area	Infantile Death Rate Per 1000
Mandvi	671.4
Dongri	665.5
Kumbharwada	513.2
Tarwadi	565.7
Kamathipura	555.81
Sewri	537.6

These areas were not only lower income areas, as mentioned in the *Times of India*; they were also areas occupied by the lower castes and minority communities in the city.[19] As mentioned in the beginning of this chapter, the average infant mortality rate for the city in 1912 was 448 per 1,000. This allows us to conclude that the infant mortality rates in the poor parts of the town were far more than the average infant mortality in Bombay. Yet, neither the municipality nor the private philanthropists in the city attempted to address the issue. The existing historical records do not mention dispensaries being set up by the municipal government or private philanthropy in areas such as Mandvi, Dongri, Sewri, Tarwadi Kumbharwada and Kamathipura until the early 1920s.

[17] Ramanna, *Healthcare in Bombay Presidency*, p. 93.
[18] *Times of India*, 3 July 1914.
[19] Various articles published in the Janata Newspaper, which was started by Dr. Ambedkar and published in Bombay, identify all of these areas the ones occupied by members of the lower castes and minority communities in the city.

During the period between 1900 and 1920, the majority of infrastructural developments in the field of maternal and infant welfare were undertaken for members of particular class, caste and community. For example, Masina hospital for the Parsis; a dispensary and lying in hospital for the Lohanas; Lad Aushadhalaya for the upper caste Hindu women; Bai Moolbai Dispensary and Sakinbai Moosabhoy Jaffarbhoy Maternity Hospital for the Khoja community; and Khatau Makanji Bhatia Maternity and Nursing Home for the members of the Bhatia community. This was largely due to the ideas of purity and pollution, dominant in the city and that most philanthropists belonged to both- the upper class and upper caste in Bombay society. Only a handful of maternity hospitals and dispensaries that catered to the general population, regardless of their affiliation to any particular caste, class, community or religion. Another major point of consideration is that most of these hospitals were located in the southern part of the city. Nowrosji Wadia Maternity Hospital which was set up in 1926, was the first major maternity and infant welfare institution in the mill district of the city, one of the densely populated areas with mill hands belonging largely to the lower sections of the society.

The Indian Research Fund Association (IRFA) carried out various investigations between 1925 and 1927. It was observed that the methods adopted by the Bombay Municipal Corporation for classifying maternal and infant deaths were misleading. In most cases, there was no medical attendance present at the time of death and the causes recorded were dependant on hearsay.[20] The study also found that 42 percent of mothers died at childbirth, 53 percent of infants were stillborn, and a further 15 percent died within 15 days of birth in the city of Bombay. Diseases such as malaria, hook worm, and syphilis were frequent causes, while other factors included eclampsia, post-partum haemorrhage, accidents during labour, and the small size of the pelvis in some women and the practice of early marriages. A special

[20] Indian Research Fund Association, *Mortality and Child Birth in India* (Calcutta: Government of India, 1928), p. 7.

inquiry was made into 250 still born cases and it was found that most were caused by anaemia. Other findings included a high incidence of pregnancy, toxaemia and deficient birth weight among babies of mill workers. It was concluded that the high mortality rates amongst mothers and infants was due to difficult conditions, the wretched attention, at the time of child birth and the lack of medical care, when it was most necessary.[21] A number of recommendations were offered by the IRFA committee such as: the need for better organization of antenatal work, building adequate medical infrastructure, the maintenance of proper records of treatment by maternity hospitals and the inclusion of the study of pregnancy in tropical climates in the medical curriculum.[22] These recommendations were implemented not by the colonial state but by private philanthropists and voluntary organisations working in the field of maternal and infant welfare.

II. EARLY MUNICIPAL INITIATIVES FOR MATERNAL AND INFANT WELFARE (1914 – 1920)

The development of maternal and infant welfare infrastructure in the early decades of the twentieth century was largely inadequate for a city such as Bombay, which was growing at an exponential rate. As Priyanka Srivastava describes, 'the early public private endeavours … did not reach the working classes'.[23] In 1910s, Bombay Municipal Corporation (BMC) was the first to take initiatives to promote medicalization of childbirth and infant welfare amongst the general population. This was due to the fact that the infant mortality rate had reached an alarming high in 1912 – 448.2 per 1,000.[24] In the opinion of Dr Turner (the Executive Health Officer of Bombay city in 1914), infants who died in the first month after delivery were largely weak, or had premature birth, or there was a neglect on the part of the women who were attending the labour. As a solution to the problem, he suggested that 'more skilled

[21] Ibid.
[22] Ibid.
[23] Srivastava, *The Well-Being of the Labor Force in Colonial Bombay*, p. 206.
[24] *Times of India*, 3 July 1914.

attendance in confinement, more sanitary surroundings and facilities for obtaining medical aid and food for mother and child to compete against poverty and ignorance.'[25] Dr Turner wrote a booklet on the subject of infant mortality in Bombay, in which he identified four major remedies to address the high death rates: providing lying in hospitals for the poor population and free medical attendance; education and registration of the native midwives with the government; to make the necessary changes in the law that would prevent an unqualified woman to attend confinements; and to set up Municipal milk depots where expecting mothers could obtain unadulterated milk for a subsidized price.[26]

While a majority of members on the Municipal committee appreciated the recommendations offered by Dr Turner to reduce infant mortality, they were criticized by a few. Dinsha Edulji Wacha was sceptical about the outcome in case these recommendations were implemented. He firmly believed that the infant mortality rates were equally high among the middle and upper classes in the city. Second criticism came from Dr. Nadirshaw H. E. Sukhia who was of the opinion that infant mortality rates were the highest amongst the lower middle classes, since women of this section of the society refused medical relief provided by maternity hospitals and clinic for various 'unspecified' reasons. Dr Sukhia added that along with poverty, insanitary conditions, air pollution, the adulteration of food, and ignorance on the part of the local population were all equally responsible for high mortality rates. While he agreed that it was necessary for the Bombay Municipal Corporation to provide medical relief, it was not the responsibility of the Municipality to provide training to the dais and midwives. He further rejected the necessity of a separate maternity hospital for the poor in the city, as he believed there was adequate medical infrastructure in the city. T. B. Nariman was of the opinion that ignorance and overcrowding in the city were important concerns associated with high infant mortality rates and therefore suggested that the focus of the

[25] *Times of India*, 20 January 1914.
[26] Ibid.

Municipality should be on addressing the same rather than establishing milk depots or maternity homes.[27]

Regardless of the criticism, one of the earliest programs initiated was that of training the dais and provisions of medical care to mothers and infants by conducting house to house visitations. This program saw co-operation between the Health Department of Bombay Municipality and Bombay Sanitary Association.[28] The Bombay Sanitary Association which was established in 1904, organised education programs and aimed at spreading awareness amongst the masses in matters of sanitation and hygiene.[29] The Lady Willingdon Scheme (LWS) which started in February 1914 by the efforts of Lady Wellingdon and the Bombay Sanitary Association, aimed to improve the condition of women and infants through various initiatives.[30] LWS is often referred to as the sister concern institution of the Bombay Sanitary Association.[31]

The BMC, the BSA and LSW worked in close co-operation with each other. This is evident in the fact that the Executive Health Officer was the Honorary Secretary and Treasurer of both- Bombay Sanitary Association and Lady Willingdon Scheme.[32] The organisations and activities, conducted by these two institutes were under the direction and control of the Executive Health Officer. Health visitors employed by the two institutions were also located in the same office as the Municipal District nurses and with almost identical duties and work profile. Both the health visitors and the Municipal nurses were under the

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[27] General Department Compilation, Accompaniment to the September Agenda of the Bombay Municipal Corporation 8th August 1914, File no. 621, 1914, MSA, Mumbai.
[28] Annual Report of the Municipal Commissioner of Bombay 1917- 1918, Report of the Executive Health Office, Bombay: Central Government Press, 1918, p. 16.
[29] *Times of India*, 30 January 1918.
[30] Ibid.
[31] Annual Report of the Municipal Commissioner of Bombay 1917- 1918, Report of the Executive Health Office, Bombay: Central Government Press, 1918, p. 16.
[32] *Times of India*, 30 January 1918.

immediate supervision of the Municipal District Registrar, who was a fully qualified medical man.[33]

Some of the earliest programmes implemented by the BSA and the LWS were house to house visitations, training of midwives, and opening of maternity homes across the city.[34] These organisations firmly believed that the home visitations, emphasis on supervised childbirth, and awareness about maternal and infant welfare, would result in reduction of maternal and infant mortality rates in the city. In addition to the work done by the volunteers of the BSA, the municipal nurses were entrusted with the job of getting in touch with the native dais and to influence them to attend lectures conducted by the BSA. They also visited poor women in confinement and gave instruction on personal and domestic hygiene.[35] As a part of the program carried out by the LWS, the dais were trained in scientific methods of childbirth and creating awareness about importance of hygiene.[36] While it would have been interesting to get an insight into the nature of the training programs conducted by the LWS, very little information is available about the same in municipal and archival records.

With a particular focus on expansion of maternal and infant welfare infrastructure, Lady Willingdon Scheme also opened up maternity homes and dispensaries in the city.[37] They also urged the government agencies to establish a maternity hospital in the north of the city, closer to the mill district.[38] A total of three maternity homes were set up in the working-class areas of the city – Byculla, Parel and Colaba – in 1915 and 1916.[39] The maternity homes at Byculla and Parel were taken subsequently taken over the Municipality and the third one at Colaba was shut down within a few years due to a paucity of funds.[40] Instead a dispensary

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33 Ibid.
34 *Times of India*, 3 July 1914 and Ramanna, *Healthcare in Bombay Presidency*, p. 118.
35 *Times of India*, 3 July 1914.
36 Ibid.
37 *Times of India*, 30 January 1918.
38 *Times of India*, 22 September 1914.
39 *Times of India*, 30 January 1918.
40 Ramanna, *Health Care in Bombay Presidency*, p. 118.

was opened at Colaba to provide medical relief to women and children.[41] The nurses employed at these maternity homes and dispensaries, as well as the lady health visitors were given the authority to provide aid in the form of bed, blanket, milk, disinfectants, etc. to those women who were in a deserving condition. However, before the aid could be provided, the deserving status of the women was to be certified by the Magistrate of that particular area.[42]

In the years to follow, a number of 'infant welfare centres' under the charge of a lady doctor and a qualified nurse were started at various locations in the city by the LWS. These infant welfare centres provided guidance regarding pregnancy and planning, infant 'management' and also provided medical aid to infants. One of the centres located on Sleater Road which was in the premises of the Dadabhoy lying in hospital, also provided crèche facility to the working class women.[43] With the donations received from the Haji Saboo Siddick Trust, three more maternity homes were opened at Belassis Road, Imamwada and Chinchpokli. These areas were largely working class areas and with a considerable Muslim population.[44] Thus, the donations enabled Lady Willingdon Scheme to provide medical relief to the minority working class communities.

Dr Turner had identified the need for milk depots in the early 1900s. He was of the opinion that good quality milk would provide the infants in the city with necessary nutrients that were crucial for their growth and development.[45] However, little initiative was taken by the Health Department of the Bombay Municipal Corporation to set up the same. In the second annual meeting of the Lady Willingdon Scheme in 1917, the committee urged that the municipal government should assist in establishing milk centres as in England, for the

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41 Ibid.
42 *Times of India*, 30 January 1918.
43 Annual Report of the Municipal Commissioner of Bombay 1918- 1919, Report of the Executive Health Office, Bombay: Central Government Press, 1919, p. 17.
44 Ibid.
45 *Times of India*, 30 January 1918.

benefit of the poor population.[46] This led to the establishment of three 'Infant Milk Depots' in May 1917, on the premises of three maternity homes, where unadulterated and pasteurised milk was supplied by the Indian Dairy Supply Company for the infants of poor women. The scheme was yet again financed by subscriptions and donations from the public.[47]

The Lady Willingdon Scheme received its share of criticism from the local population in the city. An article published in *Sanchitra Vinod*, declared that the midwife was insignificant in the Hindu society since most women were poor and could not afford for trained midwife. It went on to advise Lady Willingdon to urge her husband to discard the excise duties levied on cotton.[48] A certain group of people were agitated by the fact that the dais were being told by the trained medical staff about the scientific methods to be employed at the time of labour and child birth. They were of the opinion that the dais were practicing their profession for over centuries and therefore their knowledge should not be challenged by medical authorities.[49] However, newspaper reports suggest that the dais were keen on the training programmes conducted on the part of the Lady Willingdon Scheme.[50] The *Times of India* describes the enthusiasm expressed by the dais on the scheme. Another important feature of the scheme was that it was all inclusive as there was no visible caste bias. Dais from different castes and communities participated in the training program.[51] In terms of accessibility, the Municipal Corporation of Bombay requested the qualified medical professionals to deliver lectures and training programs in vernacular languages across the city.[52]

In the early years of the program being implemented, very little can be said about the impact it had on the infant and maternal mortality. This is largely due to the fact that in a

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[46] Ibid.
[47] Ibid.
[48] Report of Native Papers, Bombay Presidency, *Sanchitra Vinod*, May 16, 1914.
[49] General Department Compilation, Accompaniment to the September Agenda of the Bombay Municipal Corporation 8th August 1914, File no. 621, 1914, MSA, Mumbai.
[50] *Times of India*, 20 January 1914.
[51] Ibid.
[52] Ibid.

few years following its implementation, the city was affected by the influenza epidemic. During the course of the influenza epidemic from 1918 to 1921, there was a rise in the overall mortality figures for Bombay city. However, as shown in the table below, there is a visible increase in the percentage of children born in hospitals between 1916 and 1921.

Table 5.4: Work done by Municipal Nurses and Midwives in the city of Bombay.[53]

	1916	1917	1918	1919	1920	1921
Total number of births	22,867	23,539	23,799	22,744	21,609	21, 207
Percentage of still births to total registered	7.3	8.0	8.6	8.8	8.6	9.8
Percentage of the numbers verified by nurses	62.3	64.5	55.6	49.8	59.7	60.4
Percentage of confinements unattended	4.9	4.9	4.4	5.1	3.3	4.1
Percentage of confinements attended by unskilled women	61.1	57.9	55.4	58.5	61.0	56.8
Percentage of confinements attended by qualified nurses	5.1	5.0	5.6	4.8	4.5	5.0
Percentage of confinements attended by municipal nurses	9.4	10.5	10.4	9.0	9.7	2.5
Percentage of children born in hospitals	19.3	21.4	23.8	22.3	22.1	24.4
Percentage of children born healthy	78.2	79.2	75.5	75.3	71.4	67.3

The infant welfare centres started by the LWS were eventually handed over to the Bombay Municipality. Finally, in 1919, the LWS closed down and the funds were handed over to the 'Ladies Committee' presided over by Lady Lloyd.[54] Lady Lloyd carried forward the work done by the LWS through the Bombay Presidency Infant Welfare Society. Her work will be reviewed later in the chapter.

[53] Annual Report of the Municipal Commissioner of Bombay 1921- 22, Central Government Press, Bombay, 1922, p. 14.
[54] Proceedings of Municipal Corporation of Bombay, 1921, p. 167.

III. MATERNAL AND INFANT WELFARE AMONGST THE WORKING-CLASS WOMEN IN BOMBAY

i) Historiography

The historical literature available on the industrial working class in early twentieth-century Bombay can be easily divided into three periods: 1900 to 1920, 1920 to 1940 and 1940 onwards. Partha Chatterjee states that at the beginning of the twentieth century, the 'nationalist construction of womanhood' empowered women in their traditional roles as wife and mother.[55] However, the nationalist construction of womanhood was unable to explain the gender inequality present in the marital bond. Therefore, Tanika Sarkar argues that towards the third decade of the 20th century, the 'focus of the nationalist imagination shifted from the more threatening conjugal relationship to the safer and more emotive mother son relationship'.[56] This resulted in the celebration of the ideas such as 'motherhood' and 'motherland' in the political and social spheres of life. Motherhood and fertility were no longer looked at as moral issues like in the late 19th century, but as social problems that need immediate public attention.[57] The poor industrial working class women were consequently absorbed into these new concerns by elites in society. These 'subaltern' women found a constant presence in elite discourses like the government official documents, work undertaken by various voluntary organisations and private philanthropy. These elite discourses provided a variety of information about the lives of the industrial working women and how they were perceived.[58]

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[55] Partha Chaterjee, 'The Nationalist Resolution of the Women's Question', in Kumkum Sangari and Sudesh Vaid (ed), *Recasting Women* (New Delhi: Kali for Women, 1989), pp. 116-135 at pp. 116-18.
[56] Tanika Sarkar, *Hindu Wife, Hindu Nation. Community, Religion and Cultural Nationalism* (New Delhi: Permanent Black, 2001).
[57] Samita Sen, 'Gender and Class: Women in Indian Industry 1890- 1990', *Modern Asian Studies* 42: 1 (2008), pp. 75- 116 at p. 81.
[58] Ibid, p. 82.

According to the work done by Dagmar Engels, the First World War had showed both the colonists and the Indian elites the need for a healthier and sturdier physical stock.[59] This idea found an important place in the initiatives taken by the International Labour Organisation, which was founded soon after the end of the war in 1919. The International Labour Organisation aimed to direct public attention towards the improvement of the physique of the nation. Maternal and infant health was the most important of these concerns.[60] Therefore, there was a growing global pressure for various governments to adopt maternal and infant welfare measures. A similar trend was visible in the city of Bombay with an increasing number of professional and social groups working to eliminate the high maternal and infant mortality rates. Some of the important concerns that were brought to the limelight during this period were- separate medical and hospital facilities for women and the urgent need for women doctors to attend women patients, especially during childbirth.[61] This allowed for two developments: first, it justified middle-class Indian women training as doctors and on the other hand, it provided a major professional opportunity for British and European women doctors who faced discrimination in their own countries.[62]

Due to the focus on industrial working-class women as a social problem, a number of welfare programs were undertaken by both the employers of labour and the reformist voluntary organisations in the city. In Goculdas and Tata Mills, medical dispensaries were set up. A crèche facility was provided due to the initiative of the Social Service League. Through various educational and awareness programs, the minds of the mothers were trained to taken advantage of the welfare measures provided by the industrialists. However, it is important to note that idea of motherhood was used as not only a practical but ideological instrument to

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[59] Dagmar Engels, 'The Politics of Childbirth: British and Bengali Women in Contest 1890- 1930', in Peter Robb (ed), *Society and Ideology: Essays in South Asian History Presented to Professor K. A. Ballhatchet* (Delhi: Oxford University Press, 1993), pp. 222-46 at p. 228.
[60] Ibid.
[61] Sen, 'Gender and Class: Women in Indian Industry', p. 82.
[62] Ibid.

reduce the female workforce in the city during the depression of the 1930s. This helped industrial employers, who used working class motherhood as both a practical and an ideological instrument to reduce the female workforce during the depression of the 1930s.[63] Thus, we can see that the ideas of motherhood as a social problem dominated the city of Bombay throughout the first half of the 20th century. It was only after 1940 that attention was diverted from maternal and infant welfare to the politics of labour relations in the city. This shift could also be attributed to reduction in the maternal and infant mortality figures towards the mid-20th century.

ii) The Maternity Benefits Act, 1925

The 'International Labour Conference' was organized in Washington, D.C., in 1919. This conference resulted in a draft convention which aimed at providing maternity rights to women by granting six weeks of rest before and after the period of confinement.[64] This was considered to be a landmark move in the history of women's right. However, the Indian representatives at the conference believed that owing to the social customs prevalent in India, there were no efforts made to provide maternity benefits to working women.[65] At the conference, the special circumstances in India were recognized and it was not expected from India to adopt the suggested changes at once. However, the committee of the conference urged the government in India to look carefully into the matter of maternal and infant welfare. The Government of India thereafter addressed the Indian local governments regarding the issue and encouraged them to carry out investigations into the issue. The response on the part of the Local Government was not encouraging.[66] 'The Local Governments did not wish to undertake the expense, either of an industrial maternity

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63 Ibid.
64 *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1922), Vol. I, Issue 5, p. 28.
65 Ibid.
66 Margaret Balfour and Shakuntala Talpade, 'The Maternity Conditions of Women Mill Workers in India', *The Indian Medical Gazette*, 65:5 (1930), pp. 241-49 at p. 241.

scheme, or of an enquiry.'[67] The employers of the labour were in the same position as that of the government agencies.[68]

In 1921, the Secretary to the Government of India, A. C. Chatterjee, called for an informal conference at Simla.[69] At the conference, the Draft Convention V of the Washington Conference (1921) concerning the employment of women before and after childbirth was closely examined by a number of activists working for women in industrial spaces.[70] The conference resulted in an offer made by the Countess of Dufferin's Fund to place two women at the disposal of the Government for carrying out further enquiries on the maternity conditions of women industrial workers in two different parts of India. Dr Dagmar Curjel and Dr Florence Barnes, were appointed to carry out investigations in the industrial areas of Bengal and Bombay respectively. They were required to visit the industries, investigate into the working and living conditions of women and formulate possible schemes for the implementation of maternity benefits.[71] Following the conference at Simla, a meeting was held at the Labour Office in Bombay in January 1922. It was attended by the representatives of the Labour Office and the General Department, Dr Sandilands (Executive Health Officer of the Bombay Municipal Corporation), Dr Miss Balfour (Head of the Women's Medical Service) and Dr Barnes on special duty in connection with maternity benefits. It was unanimously decided that Dr Barnes would work under the Director of Public Health, who will make necessary arrangements with the Health Officer of Bombay Municipal Corporation in regard to enquiries in Bombay city.[72]

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[67] Ibid.
[68] Ibid.
[69] *Bombay Labour Gazette*, Vol. I, Issue 5, p. 28.
[70] Ibid.
[71] Ibid.
[72] *Bombay Labour Gazette*, Vol. I, Issue 5, p. 30.

It is important to note that Dr Barnes' services were lent from the Women's Medical Service for one year only.[73] Therefore, their final report *Women Industrial Workers in Bombay*, includes a general overview of various problems associated with maternal and infant mortality in the city of Bombay. Dr Barnes did not have the opportunity to follow women through their confinements and to make a detailed study of their progress.[74] In addition to the short span of research, the unsettled conditions in Bombay city following the riots of 1921 did not allow Dr Barnes to carry out investigations towards the ends of her research period.[75] However, some of the important observations highlighted by Dr Barnes in her final report were that the hours spent by women in the mills were more healthy and hygienic because the industrial spaces were better ventilated than the residential areas; chawls built by mill owners were far superior than the ones outside the mill areas; in 1921 only 3 mills provided for crèche facilities in Bombay city, while welfare work was carried out by a few employers of labour. Only Tata mills recruited a female doctor while the other mills had a male doctor, and the practice of giving '*bal golis*' to infants was common and widespread in the city.[76] She also added that if all the mills in the city, where a large number of women were employed, demanded for a trained nurse, the local supply would be extremely inadequate. Therefore, there was a need for training more women into the medical profession.[77] In order to address the issue, Dr. Barnes recommended establishment of an industrial health bureau, an industrial medical service, more medical dispensaries and maternity hospitals in the mill district of the city.[78]

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73 Balfour and Talpade, 'The Maternity Conditions of Women Mill Workers in India', p. 242
74 Ibid.
75 *Bombay Labour Gazette*, Published by Labour Office under Government of Bombay (Bombay: Government Central Press, 1923), Vol. II, Issue 1, p. 31.
76 Ibid, pp. 31-32.
77 Ibid, p. 35.
78 Ibid, p.33.

In India, where the subject of maternity benefits to women had not passed beyond the stage of investigation, maternal and infant welfare schemes were already in operation since January 1921 at the Tata Mills[79] and at Currimbhoy Ebrahim & Sons Ltd.[80] The Tata Mills provided for maternity allowance which included two months of salary inclusive of all usual allowances. This maternity allowance was given to women who had put in a minimum of 11 months of service at the mill and the claim had to be verified by the mill doctor or any other medical practitioner.[81] The employers of labour at Tata Mills and Currimbhoy Ebrahim & Sons Ltd were of the opinion that by offering the maternity allowance during the crucial stage of confinement, they not only attracted a better class of labour, but that the labour itself became more stable.[82]

The fourth session of the All India Social Workers' Conference was held in Bombay in November and December 1923.[83] The conference expressed serious concerns on the high maternal and infant mortality rates in India, specifically in large cities.[84] Dr Annie Beasant who was the President of the conference emphasised on the need for maternity benefits for women working in industrial areas in the course of her speech.[85] The conference extended their support towards various agencies working in the field and suggested than the Government should approve the legislation in connection with maternity benefits.[86] 'The conference advocated that maternity benefits should be made obligatory on all employers of labour in a manner suited to meet the requirements of women working in large industrial concerns, and recommends that the Convention of the Washington Conference be given

[79] *Bombay Labour Gazette*, Vol. II, Issue 4, p. 17.
[80] *Bombay Labour Gazette*, Vol. II, Issue 7, p. 36.
[81] *Bombay Labour Gazette*, Vol. II, Issue 4, p. 17.
[82] *Bombay Labour Gazette*, Vol. II, Issue 7, p. 36.
[83] *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Central Government Press, 1924), Vol. III, Issue 4, p. 25.
[84] Ibid, p. 26.
[85] Ibid, p. 25.
[86] Ibid, p. 26.

effect to by the Government of India and also recommended the necessity of appointing women inspectors for factories'.[87]

Following the All India Social Workers Conference, Mr N. M. Joshi decided to introduce a bill to upgrade the conditions of women working in mills and factories in the September 1924 session of the Bombay Legislative Assembly. If the bill became an act, it would grant pregnant women the right of leaving their work place six weeks before and after confinement. The act would guarantee an expectant mother with a maternity allowance to be paid by the Local Government through a fund called the Maternity Benefit Fund.[88] Further, the bill proposed that in case of the death of the woman during these weeks, the benefit to which she would be entitled could be paid to the person who undertakes the care of the child. The legislation would prohibit an employer from dismissing a woman who was absent from work six weeks before or after giving birth; and any employer of labour breaking any of the provisions of this Act would be liable to a fine which may extend to Rs. 500.[89] Mr Joshi firmly believed that the Indian women workers were not given adequate protection by the State and the bill was a step in that direction.[90] In support of the bill introduced by Mr N. M. Joshi, a resolution was moved by Mr. S K. Bole in the Legislative Assembly in October 1924, recommending the Governor in Council to urge the Government of Bombay for introduction of Maternity Benefits Act.[91]

In addition to the Maternity Benefits Act, Mr Bole suggested that more crèches be established since of the 65,000 women workers in the presidency, 30,000 were employed in the city's factories. He was also of the opinion that unless compulsion was introduced on the part of the Government, employers would not give priority to the needs of the industrial

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87 Ibid.
88 *Bombay Labour Gazette*, Vol. III, Issue 12, p. 31.
89 Ibid.
90 *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Government Central Press, 1925), Vol. IV, Issue 1, p. 35.
91 *Bombay Labour Gazette*, Vol. IV, Issue 2, p. 148.

working women. As for the cost, the mills made such huge profits that these expenses would be comparatively small.[92] When the matter was discussed in the Bombay Legislative Council, the council declared that the public opinion was not ripe for such legislation to be passed.[93] Bole counter argued that if there was no public opinion, it had to be created and if there were prejudices they had to be removed. He referred to the examples of Germany, the United States, Denmark, Britain and other countries, which had introduced similar measures.[94]

To urge the Government of Bombay to introduce Maternity Benefits for industrial working women, a public meeting was held at Bowen Memorial Hall in August 1924. The Bombay Presidency Women's Council and various other women's unions were present for the meeting. Dr Dadabhoy was the chairperson at the event. Along with industrial working women, a number of influential women like Lady Aga Khan, Dilshad Begum, Mrs Sirur, Mrs Maneklal Premchand and Miss Engineer were also present. The working women believed that the issue was of vital importance as a large section of women were the bread winners of their families and that the Maternity Benefits Act would protect the women during the critical period of pregnancy and child bearing. At the meeting, Dr. Mrs Dadabhoy strongly argued that the number of voluntary organizations working in the field of maternity and infant welfare like Infant Welfare Society, Baby Week Council, Social Service League, etc. were an expression of public opinion towards introduction of a Maternity Benefits Act and that the government agencies should consider the same.[95] Another important argument put forth by various women's unions in the city was that the women would increase their efficiency at work if they were allowed to return fit after child birth.[96] In the meeting, Mr. G. K. Devadhar pointed out that the mill owners would employ women mill workers because women labour

92 Ibid.
93 *Times of India*, 19 August 1924.
94 *Bombay Labour Gazette*, Vol. IV, Issue 2, p. 149.
95 *Times of India*, 19 August 1924.
96 Ibid.

was cheaper. The mill owners in the process saved a great deal by employing women, and therefore could support pregnant women during their critical period and help them through with maternity benefits.[97]

While there was a popular demand for the introduction of the Maternity Benefits Act, in October 1924, the Standing Committee of the Bombay Municipal Corporation also agreed to the report submitted by the Medical Relief Committee regarding infant mortality in the city and the need to represent to Government the need to amend the factory law on the lines of the Washington Convention held in 1919.[98] The report submitted by the Medical Relief Committee included the following amendments to the Factory Law: the establishment of more maternity homes in Bombay city; the free supply of milk, bread, clothes, etc., to women giving birth; greater facilities for the treatment of venereal cases; and legislation on the lines of the 'English Midwives Act of 1902'. Mr. Kanji Dwarkadas was at the forefront of this initiative.[99] In the year 1925, Margaret Balfour and Shakuntala Talpade received a grant from the Indian Research Fund Association, for a detailed enquiry into maternity conditions of mill workers in Bombay.[100] Margaret Balfour and Shakuntala Talpade undertook their research at the Nowrasjee Wadia Hospital at Parel and the Cama and Albless Hospital. They suggested that women should be given lighter work during the later months of their pregnancy; the provision from employers of one free meal a day or milk and fruits; a maternity home should be attached to the mill premises and 'a money present' should be given to allow the mother a month's rest after delivery.[101] The findings of their research pushed the Government further in order to implement the Maternity Benefits Act.

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[97] Ibid.
[98] *Times of India*, 14 October 1924.
[99] Ibid.
[100] Balfour and Talpade, 'The Maternity Conditions of Women Mill Workers in India', p. 241
[101] Ibid, p. 248

The bill initiated by Mr. Joshi and supported by Mr. Bole seems to have been rejected in 1925, mainly by the votes of the bureaucrats and indigenous capitalists, their objection being that the burden would fall on the employers.[102] However due to the support of various voluntary organisations, working womens' unions and elite society, the Bombay Maternity Benefits Rules Act was finally passed in March 1929 by the Government of Bombay.[103] The act made it compulsory on employers to provide medical relief and leave for eight weeks, before and after childbirth. Every employer had to maintain a muster roll for women, for the inspector to inspect, and provide information, every year, about the average number of women employed daily, the number who had claimed maternity benefits and who were paid benefits for actual birth.[104] In 1936, out of 24,000 women workers in Bombay, 1,900 women respectively received maternity benefits.[105]

iii) Contribution of the Bombay Presidency Infant Welfare Society

With a particular focus on infant and maternal welfare, inter-war Bombay witnessed a new form of civic participation, especially for the wives of the British officials. They engaged actively in matters related to reproduction and medicalization of childbirth. The wives of the British officials worked closely with educated elites and women social activists in Bombay to form societies and associations that promoted maternal and infant welfare amongst the industrial working-class women. One of the important outcomes of engagement such as the Lady Wellingdon Scheme was the formation of the 'Bombay Presidency Infant Welfare Society' (henceforth BPIWS) under leadership of Lady Lloyd in 1920.

In December 1918, Sir George Lloyd was appointed as the Governor of Bombay Presidency. During this tenure as a Governor, it was estimated that nearly 35 infants died

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[102] Ramanna*, Health Care in Bombay Presidency*, p. 121.
[103] *Bombay Labour Gazette*, Published by the Labour Office under Government of Bombay (Bombay: Central Government Press, 1929), Vol. VIII, Issue 9, p. 870.
[104] *Bombay Labour Gazette*, Vol. VIII, Issue 11, p. 1060.
[105] Kanji Dwarkadas, *Forty Five Years with Labour* (Bombay: Asia Publishing House, 1962), p. 38.

every 24 hours in the city.[106] Lady Lloyd was convinced that the maternal and infant welfare measures implemented were inadequate for the growing population and demands of the city.[107] One of the earliest initiatives taken by Lady Lloyd was the organization of an exhibition on 'Maternal and Infant Welfare Work'. The exhibition was done in collaboration with the Bombay Sanitary Association, the King George V Anti-Tuberculosis League, and the League for Combating Venereal Diseases. The Standing Committee of the Bombay Municipal Corporation made a grant of Rs. 5000/- toward the organisation of the exhibition. Various lectures and demonstrations were planned on topics such as hygiene and sanitations and number of stalls were set up by the various voluntary organisation collaborating for the exhibition. Visual aids like the cinematograph and magic lantern shows were arranged to create awareness about maternal and infant welfare in the city.[108]

Table 5.5: Infant Mortality per 1000 registered live births (among children under one year of age) in Bombay Presidency.[109]

Bombay Presidency	286.93
Bombay City	590.30
Karachi	289.00
Poona District	334.18
Ahmednagar	322.17
Sholapur	377.89
Ahmedabad	287.09

Before the formal establishment of BPIWS, Lady Lloyd had set up the 'Infant Welfare Centres Committee' under the chairmanship of Lady Carmichael.[110] This committee

[106] *Times of India*, 4 February 1920.
[107] *Times of India*, 6 February 1920.
[108] *Times of India*, 4 February 1920.
[109] Ibid.
[110] *Times of India*, 1 March 1921.

was entrusted the work of extending maternal and infant welfare scheme which was initiated under Lady Willingdon. The objective of the committee was to open welfare centres across the city, so that a higher number of expecting mothers and infants could avail of medical relief.[111] In order to address the issue and to set up adequate medical relief infrastructure in the city, a number of fund raising events were initiated. These included the Children's Welfare Endowment Fund, the Children's Welfare Exhibition and the Children's Fancy Dress Ball in 1920.[112] Through these events, Lady Lloyd aimed to generate enough funds to expand maternal and infant welfare infrastructure in the city.[113] In March 1920, the last meeting of Infant Welfare Centres Committee took place and it was decided to start a new organization by the name of 'Bombay Presidency Infant Welfare Society'. The old committee was dissolved and a new committee was appointed. The BPIWS aimed at promoting infant welfare by providing information and aid to expectant mothers, and help during childbirth.[114]

While the aim of Lady Lloyd was to start at least ten new centres under BPIWS, the funds collected through various initiatives (a total of Rs. 1,500,000/- was raised between 1920 and 1921) were sufficient to keep six centres.[115] The committee decided to open four new centres from January 1921: Kalachowkie Road, Clark Road, Kamatipura and the Cama Hospital.[116] With two existing centres at Sleater Road and Imamwada which were run by Dr. Dossibai Dadabhoy, who provided her service free of charge.[117] It was at these infant welfare centres that children up to the age of five were examined, treated for minor ailments and provided with milk. Each of these welfare centres was managed by a supervisor and a health visitor and a female doctor would visit twice every week.[118] The welfare centres set up by

111 Ibid.
112 *Times of India*, 4 February 1920.
113 Ibid.
114 *Times of India*, 1 March 1921.
115 Ibid.
116 Ibid.
117 *Times of India*, 4 February 1920.
118 *Times of India*, 1 March 1921.

LWS and BPIWS institutionalized antenatal and postnatal care in colonial Bombay. Towards the end of the 1920s, the society had opened a total of nine infant welfare centres, most of which were in the densely populated industrial working-class localities and a number of antenatal clinics across the city.[119]

The report published by Dr Florence Barnes had emphasized the need for crèche facility in the vicinity of the mills.[120] She concluded that the lack of crèches, forced the women working in the mills to drug the infants with opium pills.[121] In an attempt to address the problem, the BPIWS aimed to open new crèches in various localities. They also collaborated with the mill owners in the city and took over the administration of crèches in some mills.[122] Borrowing the idea of Dr Turner, the BPIWS also set up a number of milk centres in the city. In 1923, the total attendance at the various milk centres operated by the BPIWS was 214,153, and it rose to 306,221 in 1925.[123] There was also a significant rise in the total attendance at various maternity homes administered by the BPIWS and house to house visitations undertaken by qualified nurses. The maternity cases attended by qualified doctors rose from 115 in 1922 to 736 in 1925.[124] This shows that the awareness programs initiated in the city were helpful in gaining the confidence of the native population. Furthermore, once made aware, the native population took benefit of the maternal and infant welfare infrastructure in the city.

In 1927, the amendment of the Bombay Port Trust Act resulted in the formation of Bombay Port Trust Employees' Welfare Fund. Soon thereafter, the Port Trustees also collaborated with the Bombay Presidency Infant Welfare Society and a child welfare centre

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[119] Lady Cowasji Jehangir, 'Maternal Welfare Work in Bombay', *Asiatic Review*, 33 (1937), pp. 759-60.
[120] Florence Barnes, 'Maternity Benefits to Industrial Workers: Final Report of the Lady Doctor', *Bombay Labour Gazette*, September 1922, pp. 31-35.
[121] Ibid.
[122] *Times of India*, 18 March 1925.
[123] Ibid., and *Times of India*, 31 March 1926.
[124] Ibid.

was opened at Wadi Bunder, which has a number of Bombay Port Trust Labourers' Quarters. The Port Trust provided for the building, furniture, repairs, and a monthly allowance towards the upkeep of the centre. On the other hand, the Infant Welfare Society had to administer the centre, provide for medical appliances and milk, establish a clinic for infants and women under a qualified doctor and also appoint a resident nurse. The Maternity Home was opened to the staff of the Bombay Port Trust on 16 November, 1928. This was one of the earliest welfare measures implemented by the Bombay Port Trust towards their lower paid staff.[125] The footfall at the maternity home was encouraging and therefore, two new maternity homes were set up by the BPIWS.[126]

The welfare centre at Kamatipura, which was among the roughest and poorest areas in the city saw the highest footfall in 1925. By comparison, the welfare centre at Tardeo saw much more reduced usage. Women in the poor localities had taken advantage of the welfare measures in comparison to the upper-class areas in the city.[127] This suggests that if provided with medical infrastructure, women from the lower ranks of the society (both economic and social) were willing to take advantage of the same. This undermined the common myth prevalent at the time that the lower sections of society were slow to adopt modern medicine. Furthermore, in the late 1920s, BPIWS concentrated it efforts towards promoting maternal and infant welfare in Worli. It was identified as a difficult area to work for the health visitors. The people were reported to be 'ignorant and difficult to make friends with'.[128] To the surprise of the Bombay Presidency Infant Welfare Society, in 1928 they received a letter from the residents at the Bombay Development chawls in Worli, requesting the committee to open a maternity home in the locality.

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125 *Times of India*, 17 November 1928.
126 Jehangir, 'Maternal Welfare Work in Bombay', pp. 759-60.
127 *Times of India*, 31 March 1926.
128 *Times of India*, 18 March 1925.

Dr Mangaldas Mehta, a medical professional, enquired into the matter and found out that of the 18,000 people who resided in these chawls, nearly 16,000 were mill hands. Further investigation carried out revealed than more than 50 percent of the pregnant women were still handled by the dais or relatives. The need for a maternity home was strongly felt in the locality. However, the budget of the Bombay Presidency Infant Welfare Society was inadequate to start a new maternity home at Worli and so the project was delayed for two years. The society approached both- the government and various public bodies for financial assistance towards the project, but with no success. Finally, Lady Sykes was able to acquire the chawl at a nominal rent of Rs. 1 per year from the Government. The Government of Bombay also decided to bear the cost of the necessary alternations in the building to convert it into a clinic. In addition to the Government efforts, the Ratan Tata Charities agreed to donate Rs. 3,000 towards maintaining three beds at the maternity home.[129]

In the 1930s, the Bombay Presidency Infant Welfare Centres also started weekly lectures in mill areas to promote maternal and infant welfare. In addition to lectures, cinema shows were also organised for the mill hands. These films were educational in nature and were made by the committee of the Baby and Health Week.[130] The work done by the LWS, BPIWS, various voluntary organisations (see Chapter 4) in the promotion of maternal and infant welfare, resulted in a drastic change in the practices associated with maternal and infant health in Bombay. By the late 1920s and early 1930s, crèche facilities, medically supervised childbirth and infant welfare centres emerged as the norms of effective maternal and infant care. In addition to all of the above, celebration of 'Baby Weeks' during the inter-war period 'emerged as a powerful way of promoting the ideals of infants' well-being'.[131]

[129] *Times of India*, 26 March 1928.
[130] *Times of India*, 13 March 1930.
[131] Srivastava, *The Well-Being of the Labor Force in Bombay*, p. 224

iv) Bombay Baby and Health Week

In 1924, the Countess of Reading launched 'National Baby Week' to promote health propaganda across the country.[132] Following the same, Mr. G. K. Devadhar and Dr. H. V. Tilak were at the forefront in the initiative and the Bombay Presidency Baby and Health Week Association was formed.[133] The Bombay government gave a grant of Rs. 10,000 towards the initiative and additional funds were collected through public subscription. Lady Cowasji Jehangir chaired the Baby and Health Week Association in Bombay and Lady Wilson was appointed as the president.[134] Bombay's first 'Baby Week' opened on 21 January 1924.[135] Throughout the celebration, a number of programs were organised: a day long exhibition was put up by the Bombay Sanitary Association and the Nowroji Wadia Maternity Home; magic lantern talks and street lectures on various topics related to maternal and infant welfare were conducted in various localities across the city and cinema shows were planned at three mills in the city.[136] An observer lauded the efforts and commented that the event was well attended by people across various communities.[137] Local newspapers such as *Sanj Vartaman*[138] and *Hindusthan* also appreciated the initiative undertaken by the colonial authorities.[139] Mr. G. K. Devadhar, Honorary Secretary of the Bombay Presidency Baby and Health Week Association believed that the celebration of 'Baby Week' would mark an 'important era in the history of infant welfare in Western India'.[140]

In August 1925, the Municipal Corporation of Bombay considered a letter sent to them by the Secretary of the Health Week Committee appointed by the Royal Sanitary

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132 *Times of India*, 15 February 1927.
133 Ramanna, *Health Care in Bombay Presidency*, p. 120.
134 *Times of India*, 11 February 1926.
135 *Times of India*, 22 January 1924.
136 Ibid.
137 Ibid.
138 Reports of the Native Newspapers, *Sanj Vartaman*, 27th January 1925.
139 Reports of the Native Newspapers, *Hindusthan*, 29th January 1925.
140 *Times of India*, 22 January 1924.

Institute, regarding the organization of 'Health Week' in the city. The aim behind organization of this event was to create awareness about the issues of health, hygiene and sanitation. Most committee members in the Bombay Municipal Corporation agreed with the views expressed in the letter and were of the opinion that the health week would help generate a sense of personal responsibility towards health and hygiene amongst the population of the city.[141] The organization of 'Health Week' was considered to be a crucial step without which any public work, initiated by the government, would fall short of its aims. Further the members believed that an approach of 'self-help' was to be followed in matter of health, hygiene and sanitation.

The idea of organizing a health week received some criticism from some members of the Municipality. Mr Eruchashaw R. Hirjibehdin was of the opinion that this step was a waste of the public funds and that believed that this would only generate temporary interest about health and sanitation. He stated that the outcome of such an event would result in lectures being organized for a week, after which the members of the Health Week Committee would go into a deep slumber until the following year. Further, he also raised questions if the organization of health week would do any permanent good to health and sanitation issues in the city. To counter the views put forth by Mr Hirjibehdin, Dr M. F. Bisni argued that the organization of health week would provide a platform to discuss issues of health, hygiene and sanitation in the city and would prove to be a significant step in improving the health of the city. The Municipal Commissioner extended his support to the views expressed by Dr Bisni and was of the opinion that while the celebration was temporary, the enthusiasm would last throughout the year. He also mentioned that member of various communities in the city had taken a keen interest in the celebration of 'Baby Week' organized by the Bombay Council

[141] *Times of India*, 19 August 1925.

in the previous year.[142] After much debate and discussion within the Bombay Municipality, the committee decided to celebrate the 'Health Week' as the 'Baby Week' in the city.[143]

The Bombay Baby and Health Week was celebrated on an annual basis in the city. The Bombay Branch led the way and served as an example to the other branches across the country.[144] A variety of programs were organised across the city, such as exhibitions, lectures, magic lantern shows, and cinema shows. In 1924, exhibitions were held at Parel in the heart of the industrial quarter of the city and in Dadar.[145] An important feature of the exhibition was the creation of miniature models of the hospital labour room by the Bombay Municipal Corporation and infant welfare centre by the BPIWS.[146] The miniature models helped the general population of the city gain an insight into the working of the hospital/ infant welfare centre and encouraged them to take benefit of the same.[147] *Times of India* reported that the exhibitions, lectures and cinema shows have 'caught on' across the city. The first cinema show held at Colaba Land Mills, saw over 1000 millhands, their wives and children as audience.[148]

An integral part of the celebration was the 'baby shows', where the babies were judged on different categories. The committee organised baby shows since 1924, across 13 centres in the city. At each centre the babies were examined and the healthiest babies were awarded with a prize.[149] The program became popular in the city, with a significant increase in participation over the years.[150] While the aim of the baby shows was to encourage the mothers to adopt healthy childrearing practices, the baby shows imprinted the babies with

142 Ibid.
143 Ibid.
144 *Times of India*, 15 February 1927.
145 *Times of India*, 28 January 1924.
146 *Times of India*, 13 March 1928.
147 *Times of India*, 26 March 1929.
148 Ibid.
149 *Times of India*, 27 March 1929.
150 Ibid.

various social categories. Another initiative undertaken on the part of the Bombay Baby and Health week was the celebration of specific days such as 'Poorer Classes' Day[151] and 'Ladies Day'.[152] On Ladies Day, for example, special movies and lectures were organised exclusively for married women in the city.[153] In 1927, the committee started a new venture- the travelling exhibition. The travelling exhibition enabled the medical professionals to successfully invade into the thickly populated areas of the city. In the same year, an intentional effort was made to create awareness about maternal and infant welfare in the areas occupied by the lower sections of the society, for example in Madanpura and Naigaum in 1927,[154] Sandhurst Road in 1928,[155] Victoria Gardens in 1929[156] and Delisle Road in 1932.[157]

In 1929, the Bombay Presidency Baby and Health Week Association aimed at incorporating public health in their program on a large scale. The aim was to be educational and preventive in character and was directed towards the betterment of public health as towards child welfare.[158] Dr. H. V. Tilak and Dr. Jamshy Munsiff, the Director of Public Health within the Government of Bombay realized the importance of holding exhibitions, giving lectures and holding cinema shows on issues related to public health in the compound of the mills. The officials of the Factory Department also agreed with the views expressed by Dr. Tilak and Dr. Munsiff. Therefore, exhibitions were held in various mills across the city where portable models were used to illustrate the dangers and methods of avoidance for diseases like malaria, cholera, small pox and plague. Through various demonstrations and

151 *Times of India*, 28 March 1929.
152 *Times of India*, 15 March 1928.
153 Ibid.
154 *Times of India*, 15 February 1927.
155 *Times of India*, 13 March 1928.
156 *Times of India*, 26 March 1929.
157 *Times of India*, 26 September 1932.
158 *Times of India*, 25 October 1929.

lectures, personal cleanliness was emphasized upon. Infant welfare and the care of children received special emphasis during the event.[159]

Considering a majority of the attendees at the Bombay Baby and Health Weeks were women, these 'celebrations' emerged as a gendered space in the public sphere for women to interact in the colonial city. The event aimed to provide the opportunity for women to share experiences of barriers associated with reproduction, maternal health, and good infant welfare practice. An example of this is that in 1933, the committee of the Bombay Baby and Health Week decided to organise lectures to impart sex education to women in the city. The committee members thought it was necessary to impart knowledge about clean sex hygiene to girls and women of the city.[160] While this was a significant and progressive step taken at the time, it is important to understand that the Baby and Health Week was considered the ideal time to organise these lectures.

[159] Ibid.
[160] *Times of India*, 1 May 1933.

IV. PHILANTHROPY AND THE EXPANSION OF MATERNAL AND INFANT WELFARE INFRASTRUCTURE IN INTER-WAR BOMBAY:

"This Edifice was erected as a testimony of devoted loyalty to the Young Queen of the British Isles, and of unmingled respect for the just and paternal British Government in India; also, in affectionate and patriotic solicitude for the welfare of the poor classes of all races among his countrymen, the British Subjects of Bombay, by Sir Jamsetjee Jeejeebhoy, Knight, the first Native of India honoured with British Knighthood, who thus hoped to perform a pleasing duty towards his government, his country, and his people: and, in solemn rememberance of blessings bestowed, to present this, his offering of religious gratitude to the Parsee; with humble, earnest prayer for His continued care and blessing upon his Children, his Family, his Tribe, and his Country."

- Inscription on the Foundation stone of J. J. Hospital, Bombay[161]

As in the late nineteenth and the early decades of the twentieth century, private philanthropists in Bombay in the inter-war years played a crucial role in the expansion of maternal and infant welfare infrastructure. However, there was a significant difference in the approaches adopted by these philanthropists during this period. Unlike the implicit caste, class and community bias in philanthropy which was a dominant feature in the late nineteenth and the early decades of the twentieth century, the inter-war period saw the extension of maternal and infant health initiatives to target mill workers, labourers and port trust workers. One of the earliest examples of the same was the Kamarkanum Maternity Home which open on 21 February 1926 at Byculla. The Kamarkanum Maternity Home was built in the memory of Sir Currimbhoy Ebrahim's daughter, Bai Kamarkanum. Sir Currimbhoy Ebrahim had given a generous contribution of Rs. 1 lakh towards the same.

[161] W. J. Moore, 'Sanitary Progress in India', *Transactions of the Seventh International Congress of Hygiene and Demography* (1845), p. 47. General Department Compilation, MSA.

Bombay Municipal Corporation took up the responsibility of its management and also contributed a sum of Rs. 75000 towards the maternity home. A total of 50 beds were made available to women staying in Byculla (an industrial working-class locality) and surrounding areas through this initiative and it was considered to be one of the largest maternity homes in the city.[162] Sir Currimbhoy Ebrahim took inspiration from the Haji Saboo Siddick Trust who had donated Rs. 5 lakhs to the Bombay Municipal Corporation, from which three maternity homes were set up in different parts of the city.[163]

These acts of philanthropy often had multiple agendas. While some philanthropists wanted to eternalise the memory of the donor or his/her family, some wanted to strengthen community bonds and some to boost their reputation amongst the community leaders. A number of philanthropists displayed increasing concern towards maternal and infant health in Bombay and wanted to contribute for the same. In 1925, the offer of Rs. 16 lakhs from Sir Ness Wadia towards the construction and endowment of a maternity home allowed the BMC to consider the extension of medical relief in the city. Soon thereafter, the Bombay Municipality and the Government of Bombay decided to bear one quarter each of the total cost of construction, management and maintenance, while Mr. Ness Wadia and his associates were responsible for the other half.[164] This was the first hospital constructed under the scheme of cooperation between the Government of Bombay, Bombay Municipality and the public.[165] The Bombay City Improvement Trust provided 20,000 sq. yards of land opposite the Goverdhandas Sunderdas Medical College to construct a new hospital. It was considered a convenient location, as students studying at the nearby Goverdhandas Sunderdas Medical

162 *Times of India*, 22 February 1926.
163 Ibid.
164 *Times of India*, 10 April 1925.
165 *Times of India*, 14 December 1926.

College and King Edward VII Memorial Hospital would benefit from a 120 beds maternity hospital in the vicinity.[166]

True to the philanthropic tradition of the Wadia family, the Nowrosji Wadia Maternity Hospital was set up in fond memory of Mr. Nowrosji Wadia, father of Mr. Ness Wadia. The architect of the building was George Wittet, who had also designed renowned structures in Bombay. The foundation stone was laid in June 1925 and the hospital opened in December 1926.[167] As far as the management of the hospital was concerned, a separate Board of Management was appointed and the hospital was independent of any other institution.[168] The Nowrosji Wadia hospital proved to be a boon to clinical teaching in midwifery and medical students from the two medical colleges of the city – Grant Medical College and Goverdhandas Sunderdas Medical College, were allowed to serve as student internees.[169]

Sir Mangaldas Mehta played a crucial role in the establishment of the Nowrosji Wadia hospital in the northern part of the city and in the heart of the mill district. He was of the opinion that the women in the mill areas were labouring during childbirth. The women had to give birth in small, congested, ill ventilated and dark spaces. There was no comfort for the woman undergoing labour or the new born infant in the chawls. Therefore, Dr. Mehta believed that if an institution was set up in the industrial area of the city, the working women would take benefit of the same. In order to create awareness about the hospital, Dr. Mehta held a meeting with the jobbers of the mills in which he explained the establishment of the Nowrosji Wadia Hospital and enlisted their support towards the initiative. He also put up notices in various mills to acquaint the women about the establishment of the hospital. The

166 *Times of India*, 10 April 1925.
167 Official website of the Wadia Hospitals in Mumbai: http://www.wadiahospitals.org/women-about-history.aspx (Accessed 01 March 2018).
168 *Times of India*, 14 December 1926.
169 Ibid.

Times of India reported that the experiment was successful within three months of starting the awareness campaign and the industrial working women began to seek medical relief at the Wadia hospital.[170]

Before the idea of paediatrics as an independent discipline had taken roots in India, infant and childcare was limited to using adult medication and medical techniques to treat children. Infants and children were looked on simply as miniature versions of adults. In order to provide separate medical infrastructure for neonatal care, Sir Byramjee Jeejeebhoy donated a sum of Rs. 2 lakhs in 1926 towards the construction of Sir Byramjee Jeejeebhoy Hospital for Children. The financial gift was made to the Hospital Fund, a scheme of cooperation between the Government of Bombay, Bombay Municipality and the public. Sir Byramjee Jeejeebhoy was the ex-Sheriff of Bombay and one of the prominent Municipal Councillors. He firmly believed that the establishment of separate hospital for infants and children would 'help solve the acute problem of high infant mortality'.[171] The foundation stone of the hospital was laid in December 1926 and the opening ceremony was carried out in November 1928.[172]

Sir Byramjee Jeejeebhoy Hospital for Children was the first of its kind in the whole of India. None of the other cities and towns in the country had a provision of a separate building to treat infants and children. The medical equipment and facilities offered at the Sir Byramjee Jeejeebhoy Hospital for Children were up to date with scientific development. There was a provision of 100 beds at the hospital and it was open to people across all sections of the society.[173] Similar to the Nowrosji Wadia Maternity Hospital which was established opposite the GS Medical College and KEM Hospital, the Sir Byramjee Jeejeebhoy Hospital for Children was constructed in the neighbourhood of Grant Medical College and Sir

[170] Ibid.
[171] *Times of India*, 15 November 1928.
[172] Ibid.
[173] Ibid.

Jamsetjee Jeejeebhoy Hospital.[174] In 1928, there was no provision for medical students in India to get specialised training, owing to the lack of a special hospital for children. Sir Byramjee Jeejeebhoy Hospital for Children filled in the void and provided an opportunity for the medical students at the Grant Medical College to gain specialised training in infant and child care.[175]

The Wadia family donated another significant amount towards the construction of a children's hospital in the city. Sir Ness Wadia and Sir Cusrow Wadia built the Bai Jerbai Wadia Hospital for Children, in memory of their mother Bai Jerbai Wadia. The Wadia family members were strong believers in the idea that the need for quality healthcare is universal, and they vowed to provide affordable medical services to infants and children in every section of the society. In February 1928, Sir Cusrow Wadia was appointed as the Chairman of the board consisting of his brother Sir Ness Wadia and six other members to work on the establishment of the hospital. Dr. R. N. Cooper was appointed as the Principal Medical Officer. The foundation stone for the hospital was laid in March 1928 and was declared open to the public in December 1929 by the Governor of Bombay at the time, Sir Frederick Sykes.[176] This institution provided free medical aid to infants and children for the poorer sections of the society.[177] Sir Byramjee Jeejeebhoy Hospital for Children and the Bai Jerbai Wadia Hospital for Children, were trend setters in the field of infant medical care.

In November 1928, a maternity ward was opened as a part of the hospital extension program at the Sir Hurkinsondas Nurrotumdas Hospital in Girgaum. It was named as the Sheth Devidas Purbhoodas Kothari and Hemkorbai Maternity Ward. The maternity ward was constructed from the financial gift worth Rs. 1 lakh provided by Mr. Samaldas

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174 Ibid.
175 Ibid.
176 Official website of the Wadia Hospitals in Mumbai: http://www.wadiahospitals.org/child-about-history.aspx (accessed 1 March 2018)
177 Ramanna, *Health Care in Bombay Presidency*, p. 130.

Purbhoodas Kothari. At the opening ceremony of the maternity ward, Mr. Ishwardas Lakhmidas praised the concentrated efforts undertaken by Sir Leslie Wilson and Lady Wilson in the city to solve the pressing problem of inadequate medical relief infrastructure. In addition, Mr Lakhmidas and Mr. Samaldas Kothari donated a sum of Rs. 10,000 each to commemorate the name of Sir Leslie Wilson and Lady Wilson respectively in connection with the hospital. The two donations made it possible to open two free beds in the maternity ward. Sir Hurkinsondas Nurrotumdas Hospital catered to the Gujarati Hindu population in the city.[178]

While evaluating the contribution of the private philanthropists in the development of public health infrastructure, it is evident that the Parsi community stood at the forefront.[179] In twentieth-century colonial Bombay, some of the major public hospitals and dispensaries were built with the endowments made by various members of the Parsi community. Parsi philanthropy and their specific modes of giving have had a significant impact on the maternal and public health landscape of the city. Along with the Parsi community, other religious communities such as Muslims, Hindus, and Jews also donated generous amounts towards construction of health infrastructure. Parallel to these developments, the inter-war period witnessed what David Arnold describes as a 'competitive civic philanthropy', which was encouraged by the colonial state. The colonial state was keen on reducing its financial commitments and responsibilities by encouraging the acts of private philanthropy. An article published in the *Times of India* highlights the 'competitive civic philanthropy' in inter-war Bombay. It mentions that the 'Mahomedans of Bombay were almost rivals of the Parsis in generosity …. They were all well aware that Mr. N. N. Wadia had donated Rs. 16 lakhs to

[178] *Times of India*, 27 November 1928.
[179] Leilah Vevaina, 'Good Deeds: Parsi trusts from 'the womb to the tomb', *Modern Asian Studies* 52:1 (2018), pp. 238-265. Also see, Jesse Palsetia, *The Parsis of India – Preservation of Identity in Bombay City* (Leiden: Brill, 2001).

build a maternity hospital in the northern part of the city'.[180] The 'competitive civic philanthropy' between the Parsis and the Muslims in the city can also be traced back to the communal riots that occurred between the two communities in 1857.[181]

Some of the hospitals and dispensaries set up in the 1920s and 1930s also had wards reserved for members of specific community, usually that of the donors. However, there were an increasing number of hospital beds available for the general masses and a visible rise in the creation of public health infrastructure in the working class localities of the city. In Bombay, the donations made by the native philanthropists went a long way in the improvement of maternal and infant health. From a city with the highest maternal and infant mortality figures in 1921, Bombay became a pioneer in the field of maternal and infant welfare in the late 1930s. Many cities in India followed the footsteps of Bombay. This is evident in numerous letters written to the Government of Bombay from other cities and presidencies, to provide information on various schemes and measures implemented in Bombay.[182] The collaboration of the Government agencies with local philanthropists in Bombay proved to be a crucial step in the reduction of the mortality figures. Through these collaborative efforts, maternal and infant welfare infrastructure – in the form of hospitals, maternity homes, infant welfare centres, and crèches – grew across the city and catered to various sections of the society. The voluntary associations also contributed significantly to the reduction in maternal and infant mortality rates. Their work in the poor localities and the industrial district of Bombay City was crucial in breaking barriers of class and caste.

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[180] *Times of India*, 22 February 1926

[181] The first riot took place over the blurred depiction of the Prophet Mohammed and his appearance in a public print by a Parsee newspaper, *Chitra Gyan Darpan*, in October 1851. A second riot took place on February 13, 1874, over an article on the life of the Prophet in a book entitled Famous Prophets and Communities. For additional information- Jesse Palsetia, *The Parsis of India: Preservation of Identity in Bombay City* (Boston: Brill, 2001).

[182] A number of letters have been received from Madras and Karachi asking the Government of Bombay for information about maternal and infant welfare programs implemented in the city and the Presidency, General Department Compilation at the MSA, Mumbai.

In 1935, a lecture given by Dr. Mrs. Socrates Noronha on 'Maternal and Infant Mortality' at the Bowen Memorial Hall, Bombay said that the maternal mortality in Bombay was reduced by half since 1925, and infant mortality by more than half. In 1931-32, for the first time since 1866, the birth rate exceeded the death rate in Bombay. The lecture was the fifth of the series organised by the Public Health Committee of the Bombay Presidency Women's Council. Dr. Noronha stated that the city of Bombay had achieved a considerable progress in maternal and infant welfare over the past decade. She substantiated her argument by stating that nearly 65 to 70 percent of births in the city, took place in maternity homes. She argued that this was possible because of the efforts taken by the Health Department of Bombay Municipal Corporation and the various voluntary organisations.[183]

Bombay also received its fair share of criticism from the colonial state, for the maternal and infant welfare policies adopted by the local government and the voluntary organisations. In 1934, the Public Health Commissioner with the Government of India released a statement in which he mentioned the efforts undertaken to reduce mortality figures in the city, but added that 'this policy was questionable'.[184] The Public Health Commissioner was critical of the extensive program of hospitalization in maternity cases as he believed that maternity hospitals were more expensive to run than an efficient domiciliary midwifery service and there was no established evidence that that maternity homes provided safer confinement.[185]

In response to the criticism offered, Sir Mangaldas Mehta who worked tirelessly for maternal and infant welfare in the city, gave a fitting reply in the *Times of India*. Sir Mangaldas Mehta wrote that the Commissioner's criticism was based on a misunderstanding of the local conditions in the city. While the midwifery service was cheaper and more effective in the

[183] *Times of India*, 22 February 1935.
[184] *Times of India*, 20 February 1937.
[185] Ibid.

rural parts of the country, it was not an ideal one for the city of Bombay. The congestion and overcrowding in the city made it impractical to provide maternity service in every household. As far as the substantial evidence was concerned, Mr. Mehta offered the results of the hospital service in the city. The results reveal that in 1935, the percentage of maternal deaths in maternity homes and hospitals was 0.46 and 0.42 respectively, while that for private residences was 0.68 and 0.6. The figures are even more striking when it was understood that the hospitals had to deal with abnormal and emergency cases which entailed removal from residences.[186]

The statistical evidence makes it evident that the efforts taken by the Bombay Municipal Corporation and the voluntary organisations were indeed successful. In 1933, when Sir John Megaw investigated the problem of maternal mortality in India, the death rate was 24.05 per 1,000. In 1937, the maternal mortality rate for Bombay was only 4.4 per 1,000, and towards the end of 1938, a total of 1,308 maternity beds were recorded in the city. This meant that there was 1 bed available for every 300 confinements.[187] This was a significant development, considering the limited infrastructure available for maternal and infant welfare until the 1920s.

There is little information available about the initiatives taken in the city from 1940 to 1945 towards expansion of medical infrastructure for women and children. This was largely due to the effects of the Second World War, followed by the declaration of Indian Independence from the colonial yoke. The issue of maternal and infant mortality was taken up after independence. In November 1947, women from the Bombay Presidency called for a 'health drive'. Through this drive, they urged Dr. Gilder, Minister of Health for the Government of Bombay to establish more maternity homes, recruit a higher number of

[186] Ibid.
[187] *Times of India*, 15 April 1938.

doctors and nurses and implement policies to reduce maternal and infant mortality. Some of the women who were at the forefront of this initiative were Mrs. Lilavati Munshi and Mrs. Ammu Swaminathan. They urged the Government to identify the health problems as a priority and focus on eliminating the same.[188]

Thus, we can conclude that the issues of maternal and child welfare dominated the discourse on women workers' well-being in inter-war Bombay. The high maternal and infant mortality rates invited the attention of the colonial state and the Bombay Municipal Corporation. The government agencies urged the local elites and the private philanthropists to work towards improvements in medicalization of childbirth and child welfare initiatives. In addition, there was a greater emphasis on spreading awareness about the preventive measures associated with child birth and child rearing. While there was limited success in improvements associated with sanitary living conditions, the women in Bombay were open to accepting modern scientific methods associated with maternal and infant welfare.

[188] *Times of India*, 23 November 1947.

CONCLUSION

Few nations have addressed the health needs of their peoples with such callousness and contempt.

- P Sainath, 1996[1]

Today, Mumbai is the financial capital of India and is also home to the richest municipal corporation in the country. Despite the robust financial position of the city, the public health system is under tremendous pressure.[2] One of the biggest public health challenge in Mumbai is the huge burden of disease, and the comparatively limited available financial resources. Diseases such as dengue, malaria, tuberculosis, and others are rampant in the city.[3] The city's public health is one of the most pressing and yet neglected issue. A study undertaken by the World Bank states that 'Mumbai's existing health infrastructure was planned between 1950 and 1980 to cater to 5.2 and 7 million people, while the facilities are currently used by about 13 million people'.[4] Neither the state nor the municipal government has any comprehensive plan for dealing with the healthcare demands of Mumbai's ever-growing population. Mumbai's current public health system resembles a patchwork of numerous policies initiated over a long period of time. The failure of the government agencies in dealing with the crisis has created a massive gap in effective, affordable, and accessible healthcare services.[5]

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[1] Sunil Amrith, 'Political Culture of Health in India, A Historical Perspective', *Economic and Political Weekly*, 42:2 (2007), pp. 114-121 at p. 114.
[2] Observer Research Foundation (henceforth ORF), 'Deteriorating public healthcare in Mumbai': https://www.orfonline.org/research/deteriorating-public-healthcare-in-mumbai/ (accessed on 07 May 2019)
[3] Jyotsna Krishnamoorthy, 'Malaria, dengue cases higher than BMC claims: Praja', *The Hindu*, 7 September 2018.
[4] Prachi Salve, 'Mumbai has India's best healthcare. It isn't enough.' *Business Standard*, 2 March 2015.
[5] ORF, 'Deteriorating public healthcare in Mumbai'.

While looking at the question of health and wellbeing, there are two important considerations – social inequality and urban poverty. In the post-colonial period, Mumbai saw a steady decline of the industrial sector and a growth of the tertiary sector. Deindustrialisation resulted in the intensification of problems such as unemployment, the overcrowding of slums, and the displacement of the industrial working class.[6] It is estimated that more than 6 million people now live in Mumbai's slums and they largely exist as an undifferentiated mass.[7] In spite of being major contributors to the economic output of the city, they continue to live without access to basic necessities such as water and sanitation. An ideal case study to highlight the plight of the lower sections in terms of access to public healthcare infrastructure is that of the Sion Hospital in Mumbai. This hospital was established in 1947 and is located in Dharavi, one of the most densely populated settlements in the world.[8] The population of Dharavi is estimated to be between 600,000 and one million people. Despite the huge pressure placed by such a large population on this medical institution, the hospital has grown only from a 50-bed medical centre to one with 1,400 beds today. These numbers allow us to conclude that only 1 bed exists for every 715 people in the area.[9] However, it is not only a question of the lack of adequate public health infrastructure but also one of social inequality. It is important to note, though conveniently ignored by the local government, that Dharavi is identified as a Scheduled Caste constituency. This means that a majority of the inhabitants belong to the lower caste according to the divisions within the Hindu society.

Nearly seven decades after independence, the city of Mumbai lacks a long-term comprehensive health policy. Such a policy is crucial to implement preventive measures

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[6] Carlin Carr, 'Health in Indian slums: inside Mumbai's busiest public hospital', *The Guardian*, 30 October 2015.
[7] Ibid.
[8] Ibid.
[9] Ibid.

against the growing health concerns in the city. The lack of planning on the part of the state and the Municipal Corporation of Greater Mumbai (MCGM) has resulted in Mumbai's public health sector approaching a point of exhaustion.[10] While many efforts have been made by the municipal corporation, the city still has a long way to go. Mumbai also faces a massive shortfall in the total number of municipal dispensaries required for the provision of adequate medical relief to the inhabitants of the city. According to the National Urban Health Mission and the National Building Code, it is imperative for the municipal governments across the country to have atleast one dispensary per 15,000 population.[11] However, in Mumbai, there are only 171 dispensaries for a population of approximately 12,400,000 people. This indicates that only 1/5th of the total requirement of 830 municipal dispensaries is currently provided. Figure 12: The following figure shows the ratio of dispensaries required and those currently available in Mumbai.[12]

Ratio	Minimum	Required	Available
$\frac{\text{Dispensary}}{\text{Population}}$	$\frac{1}{15{,}000}$	$\frac{830}{12.4\text{ mil}}$	$\frac{171}{12.4\text{ mil}}$

In 2012, the Planning Commission of India, an apex body that forms plans and distributes resources for the country's overall development, refused to include healthcare as one of the basic necessities for the population of the country.[13] This decision overlooked the many suggestions offered by healthcare experts on the panel, who had recommended the exact opposite in their submissions. Furthermore, a report published by the World Health Organisation indicated that the Government of India's contribution to the public health

[10] ORF, 'Deteriorating public healthcare in Mumbai'.
[11] 'Report on the State of Health in Mumbai', PRAJA, 2017, Mumbai. Retrieved from https://www.praja.org
[12] Ibid. Also see 'Mumbai's health infrastructure remains dismal even as city struggles to contain dengue', *First Post*, 21 July 2017.
[13] 'The state of healthcare', *Live Mint*, 22 February 2012.

sector is only 32%, while the remaining 67% is the contribution of the private sector.[14] Amartya Sen and Jean Dreze have argued that 'public health has been one of the most neglected aspects of development in India'.[15] This allows us to conclude that the Indian central government wishes to reduce its responsibilities towards the masses and increase the involvement of capitalist enterprises in the delivery of public health. For the city of Bombay, Government of India has not invested in a single public hospital since independence.

In Mumbai's current public health crisis, there is an element of the 'presence of the past'. In many ways the situation resembles the health scenarios that characterized the city at the turn of the twentieth century: the prevalence of diseases, inadequate healthcare infrastructure, spatial segregation based on social hierarchies and financial conservatism on the part of the colonial state. Therefore, this thesis has examined the politics surrounding the management of public health in inter-war Bombay. My analysis has outlined how the governing agencies, urban civil society, and industrialists, shaped the politics of public health in the city.

In the first chapter, I began by analysing the trends in health and mortality during the inter-war period. Such an analysis has enabled me to identify the key determinant of health in the twentieth-century colonial city. While most health histories in the colonial period show a rise in mortality figures over a period of time, Bombay during the inter-war period stands as an exception to the general rule. There is instead steep decline in the mortality rates from the mid-1920s until independence. Bombay transformed its image from one that recorded the highest mortality rate across the globe during the influenza pandemic of 1918 to one that recorded mortality rates lower that the national rural average in the late 1930s. This transformation clearly tells a strong story.

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[14] Ibid.

[15] Jean Dreze and Amartya Sen, *India: Development and Participation* (New York: Oxford University Press, 2002), pp. 200-02.

In most histories, it is difficult to identify the precise reasons for a particular change in the society. However, in the case of Bombay during the first half of the twentieth-century, the steep decline in mortality rates was largely due to the multiple forms of governmentalities that emerged. Private philanthropists, civil society, and the Bombay Municipal Corporation through a number of initiatives were able to tackle the very high mortality rates evident in the early decades of twentieth-century Bombay. Their focus was more on preventive measures than on curative ones. However, they also invested significantly in creating an accessible healthcare infrastructure for the poorer sections of the society. I argue that the caste bias reflected in this policy, at the municipal level, further strengthened the social and economic inequalities that were already present in Bombay's urban space.

Chapter Two focused on the influenza pandemic of 1918. In my analysis of this event, I focus on the nature of medical relief set up in Bombay and highlight the class, caste and community biases in social service and philanthropy. Disproportionately high mortality rates were recorded in poorer localities, which saw lack of adequate medical relief infrastructure. I argue that the influenza epidemic was a turning point in the health history of twentieth-century colonial Bombay. It became increasingly evident to the masses that the colonial state was reluctant to invest in public health and sanitation. This resulted in an extensive programme of expansion of public health infrastructure, funded mostly by local elites and the middle classes of the city.

The third chapter began with the changes in the health and sanitation policies of Bombay, following the end of First World War. Both the influenza pandemic and the rising nationalist movement against colonial rule played crucial roles in forcing the colonial state to reconsider its involvement in matters relating to health and sanitation health policies for the city. The colonial state was aware of the rising discontent among the masses about the failure on part of the government to provide medical relief during the epidemic and during India's

military participation in the First World War. One of the important policies initiated during the inter-war period was the establishment of the Governor's Hospital Fund. While evaluating the Hospital Fund, I have traced a change in the government's attitude from being a financially strapped institution to one that incentivized local philanthropists to develop collaborative relationship with them on matters of public health. Furthermore, the chapter highlights that the government's expenditure on health remained quite limited, and the economic depression of the 1930s exposed many loopholes in the policy of the Governor's Hospital Fund.

This failure in a policy making process resulted in many hospital beds lying idle. In the 1920s, the native population contributed towards the establishment of public health infrastructure. They were reluctant to generate funds towards the maintenance of hospital bed. As Mridula Ramanna has shown, 'the colonial government may have desired the whole burden of maintaining these institutions also to be borne by the public, but the popular sentiment was that there would be contributions, only when maladministration had been addressed had been redressed and people were convinced that public hospitals were being efficiently administered'.[16] However, the failure of the Governor's Hospital Fund to maintain hospital beds forced the native population to provide for their maintenance costs. The Hospital Maintenance Fund was a step in the same direction. Therefore, by the mid-1930s, the entire responsibility of building and maintaining public hospitals and dispensaries rested on the citizens of Bombay. Another significant development during the period was the impact of the nationalist movement on public health. There was a clear increase in the number of qualified Indian doctors and medical professionals in the city of Bombay. Furthermore, the emergence of Gandhi as a leader of the masses and the ideas of 'boycott' and 'swadeshi' found firm roots even in the field of public health. The native population not

[16] Ramanna, *Health Care in Bombay Presidency*, p. 185. (Also see *Bombay Samachar*, 9 October 1924 and *Jam-e-Jamshed*, 13 October 1924.

only boycotted the Indian Medical Services and set up local medical school and hospitals, which were staffed entirely by Indians, but also replaced medical equipment from Britain with locally manufactured ones.

Chapter Four focused on the work undertaken by the social service organisation in the 'upliftment' of the industrial working class in Bombay. This chapter argues that these agencies played a crucial role in generating public awareness, education of the masses on issues related to health and sanitation, and the provision of medical facilities. Drawing on Prashant Kidambi's work on the role of Bombay's civil society in the field of social service as a starting point for the inter-war period, I argue that in inter-war Bombay, the colonial state and the industrialists worked in close cooperation with the social service institutions to exert 'social control' over the labour population. This 'social control' was aimed at occupying the leisure time of industrial workers, in an attempt to restrict them from participating in industrial action. However, industrial strikes were an essential feature of the inter-war period, with the industrial working class demanding better working conditions and a rise in wages.

The maternal and infant health was a relatively low priority agenda for the colonial state.[17] In the early decades of the twentieth-century, Bombay's intelligentsia and social service organisations were able to highlight the poor state of maternal and infant health to the colonial state. In the interwar period, local elites urged the colonial state to provide maternity leave and crèche facilities at the city's mills. Furthermore, they also played a crucial role in demanding that the colonial state implement the Maternity Benefits Act in 1925. The pressure exerted by the International Labour Organisation (1919) - especially - by drawing out the rights of working-class women across the globe, with a particular focus on health, well-being and welfare helped the local elites in Bombay to push for maternity benefits. The chapter also documents the expansion of childbirth facilities for the masses by the Bombay

[17] Ibid.

Municipal Corporation, social service organisations, and private philanthropists. I argue that there was a significant change in the approach adopted by the philanthropists in the inter-war period. In the late nineteenth and the early twentieth century, philanthropists worked towards the establishment of childbirth facilities for the members from a particular caste and community. However, in the interwar period there was a change in this approach; this was that maternity hospitals and dispensaries were set up for the general population, and specifically in the crowded mill localities of the city of Bombay.

Overall, this thesis makes three key points: first, it succeeds in establishing a strong link between the existing social hierarchies in colonial Bombay and access to healthcare infrastructure. This is evident in many different ways: medical relief during the influenza pandemic; public health infrastructure; spatial segregation based on social hierarchies and its links to mortality rates; policies associated with the containment of diseases such malaria; and the approach of voluntary organisations and philanthropists. Overall, one can safely conclude that the study of public health in colonial Bombay lays bare the class- and caste-based inequalities existent in the society. Second, the steep decline in the mortality rates from the mid-1920s through to the 1940s was due to the active role played by local intermediaries such as Indian medical professionals, private philanthropists, and social service organisations. While sensitive to the particular cultures of the native population, they initiated gradual changes in the field of public health and sanitation. Unlike the colonial state, which followed intrusive policies in the expectation of quick results, local elites and the professional middle class in the city invested in awareness campaigns. Lastly, this doctoral project not only fills in the vacuum in the available historiography on Bombay's public health in the colonial period, it also offers a fresh perspective in understanding the urban health history of Bombay, while keeping the city at the centre of the analysis.

During the course of research and later in the writing stage, there emerged a number of themes that open up avenues for future research in the field of urban health histories: first, considering the focus given to maternal and infant welfare, much more can be said about the intersections between gender and caste discrimination in colonial Bombay. Such an investigation might throw further light on the extent to which lower-caste working women continued to face exploitation on two levels in India's new urban spaces. Second, there is little documentation of the training programmes undertaken for the midwives in the city and also for the emerging nursing profession. A detailed investigation on the issue would allow greater understanding of the nature of the training programmes, and also the interactions between western medicine and indigenous knowledge systems. Third, public health systems in Bombay have received greater attention from historians in comparison to other urban centres in colonial India. There is a need to document and analyse the health histories in other urban parts of the country. Health policy and system developments were often nationwide in scope. At the same time, every urban space has its own set of distinct features that distinguish it from other areas. Comparative analysis may, therefore, be helpful in not only understanding the forces that drove health policy and systems interventions but also in understanding what influences their impacts. Finally, it would clearly be valuable to study the evolution of public health system in post-independence Bombay to understand the process of transition from a colonial to post-colonial society.

GLOSSARY

Fluxes	Abnormal discharge of blood or other matter from or within the body.
Dropsy	Old fashioned term for oedema.
Scurvy	Disease caused by deficiency of vitamin C.
Barbiers	Disease of the nervous system.
Kala-azar	Black fever.
Dai	Midwife/ wet nurse.
Dalit	Lower-caste.
Nava Sardi Bukhar	New type of cold and flu.
Pneumonia jacket	Jacket made of two pieces of cloth with about an inch-thick layer of cotton in between.
Bhayas	Caretakers.
Urbs Prima	First city.
Bal Golis	Opium pills.

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