People and Public Health: Probing Smallpox and Cholera in Mayurbhanj of Odisha, 1905-60

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Abstract

The central concern of this paper is to explore the public health scenario of the people and probing how the colonial public health system functioning in the specific disease and particular region, *e.g.* smallpox and cholera in the context of Mayurbhanj region of Odisha. That doesn’t mean the colonial medical or health care system was not advancing in a manner in which the downtrodden or the masses were requiring and expecting from the colonialists for their betterment. But some diseases like smallpox and cholera in the particular area like Mayurbhanj the scenario was not so much satisfactory. The question is why the colonial medical facilities were unable to reach the people in the appropriate time as a result of this numbers of people suffered and lost their lives, this is the central argument of this present study in the context of Odisha particularly Mayurbhanj.

Background

Mayurbhanj was a princely state before merging with the Indian state of Odisha in 1948, it was situated on the south of then Chhotnagpur region, on the south-west of Bengal and north of Odisha Province. The north-west region is covered by Similipal mountain area. Majority of the people of this region belonged to *Santhal* tribal community, the people of this community is living both in the hill and plain areas.

Smallpox was a devastating scourge. A highly contagious viral disease, it killed up to half of those infected, and seriously maimed survivors through severe scarring of the skin with pockmarks, blindness and infertility. Smallpox was mentioned by Charaka in the *Susruta Samhita*. Its outbreak was ascribed to harmful food and defective diet, air and water. Smallpox epidemics were customarily treated as major events in South Asia, receiving the attention of the ruling elites, government agencies, medical practitioners, civilian commentators and ordinary people. The disease evoked widespread fear, and it is important not to ignore this fact. British officials in colonial India were aware that smallpox could transcend racial and geographical barriers, even if they were often unsure about why this was so.

Cholera known as mainly a water-borne disease, originated in India. It was one of the most frequent epidemics in eastern India. In India,
occurrence of cholera was attributed to the wrath of the cholera deity for violation of Hindu religion by slaughtering cattle for feeding British troops camped in a sacred grove. The modern history of cholera begins from 1817 when it first attracted attention by its fearful ravages in Jessore and soon ran its pandemic course within two years over the whole world. The report 1920 on the nature of this disease, prepared by Dr James Jameson in compliance with the orders of the Indian Government, proved that cases of the so called cholera morbus had been known to end fatally.

A Study

Both the two diseases smallpox and cholera were significant because the people unusually and unknowingly suffered in large numbers. The colonialists partially succeeded to check the fatal diseases, then the free India government also applied the same policy which is prevalent till now. The present study seeks the true microscopic characteristic of demography during the period under study.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Deaths in Mayurbhanj</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Smallpox</td>
</tr>
<tr>
<td>1904-05</td>
<td>30</td>
</tr>
<tr>
<td>1905-06</td>
<td>8</td>
</tr>
<tr>
<td>1906-07</td>
<td>17</td>
</tr>
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<td>1908-09</td>
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<td>1909-10</td>
<td>22</td>
</tr>
<tr>
<td>1910-11</td>
<td>62</td>
</tr>
<tr>
<td>Total</td>
<td>172</td>
</tr>
</tbody>
</table>


Smallpox

Smallpox was an infectious disease caused by either of two virus variants, Variola major and Variola minor. The disease was originally known in English as the “pox” or “red plague”; the term “smallpox” was first used in Britain in the 15th century to distinguish variola from the “great pox” (syphilis). The last naturally occurring case of smallpox (Variola minor) was diagnosed on 26 October 1977. The term sitala had been used in Bhavaprakasha in connection with the cold treatment for the fever that accompanied smallpox. The goddess Sitala Devi, it was believed, made her presence known through eruptions and to thwart her was to incur her displeasure. She was therefore pacified by cooling offerings. To counter smallpox, inoculation had long been in use in India.

The above statistics shows that from 1904 to 1911 the number of deaths from smallpox was 172. Public health was bad during the year under report in comparison with that of the previous year. The year 1905-06 there were only 9 cases smallpox reported from Sadar Sub-Division. The Sub-Divisions of Bamanghati and Panchpir remained quite free from cholera and smallpox. In 1906-07, public health was good during the year under report throughout the Mayurbhanj state with the exception of Olmarapergannah which showed no improvement. There was no epidemic of smallpox during the year. From 1907-08, public health was much better in the year under report than in the two preceding years. In the year 1908-09, the public health was not satisfactory during the year under review as compared with that of the preceding two years. The public health was bad as the natural accompaniment of a year of scarcity when the people owing to high prices of food grains ruling in the market fall back upon
unsuitable food. In the year 1909-10, public health was good under report.

The year 1914-15, public health was on the whole good during the year. 246 cases of smallpox were reported from 11 thanas in the year. Prompt measures were taken to vaccinate all unprotected persons in each locality on the outbreak of the disease which in on case was allowed to assume the proportions of an epidemic. The year 1917-18, public health was better, 315 cases of smallpox were reported from 10 thanas in the year (8 within the Sadar and 2 in the Kaptipada Sub-Division) with 14 deaths. 167 cases were reported in the Baripada town of which 5 were proved to be true cases of smallpox. In the year 1919-20, deaths were 202 from smallpox which was reported in the state-150 deaths in Sadar, one at Bahalda, 19 in Panchpir and 32 in the Kaptipada Sub-Division. The year 1923-24, the health of the people throughout the Mayurbhanj state was satisfactory due to good harvest in four successive years and better economic condition of the people. Very interesting thing was that, some cases of smallpox were reported from the jurisdiction of the Muruda, Baisinga and Barsahithanas in the Sadar Sub-Division. A few cases occurred in the Kaptipada Sub-Division, and some cases were reported from the Bamanghati and Panchpir Sub-Divisions. In the year 1925-26, the cases of smallpox was 1,063 out of that 118 people died. And the very next year 1926-27 the cases increased four times than the previous year as 4,712 and the number of deaths increased nearly six times as 648.

From the beginning of the year 1934-35, smallpox broke out at some places which, in no time, spread all over the state of Mayurbhanj with the exception of a few places. Out of 12,506 cases, 1,112 deaths were reported against 1,887 cases with 563 deaths in the previous year. Public health was not quite satisfactory at many places during the year. After five years in 1939-40 the number of deaths decreased nearly half as 713 deaths and the cases decreased nearly one sixth as 2,068. And then after five years 1944-45, the number of deaths increased nearly doubled as 1,338 and the cases increased more than double.

During the last forty years from 1905 to 1945, the number of deaths from smallpox sometimes nil and some year very tiny percentage and the very next year it increased so high, may be due to the unwillingness of the colonial officials and improper implementation of vaccination.

<table>
<thead>
<tr>
<th>Year</th>
<th>Attack</th>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>37</td>
<td>6</td>
</tr>
<tr>
<td>1956</td>
<td>51</td>
<td>9</td>
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<tr>
<td>1957</td>
<td>374</td>
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<td>1959</td>
<td>314</td>
<td>48</td>
</tr>
<tr>
<td>1960</td>
<td>39</td>
<td>Nil</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1107</strong></td>
<td><strong>212</strong></td>
</tr>
</tbody>
</table>


In the post-colonial period Mayurbhanj district was sometimes in trouble for the disease especially due to smallpox. The death rate of smallpox was 0.02 in 1955 after three years in 1958 the death rate was so high as 0.55. But as per the number of deaths from this disease so high in the year 1957, people died nearly more than twenty times in this year as from 6 to 117. After three years the number of death was nil in 1960. During the last five years 1,107 people were attacked due to this disease and 122 people died.
**Cholera**

Cholera is an infection of the small intestine caused by the bacterium *Vibrio cholerae*. The main symptoms are watery diarrhoea and vomiting. This may result in dehydration and in severe cases grayish-bluish skin. Transmission occurs primarily by drinking water or eating food that has been contaminated by the faeces (waste product) of an infected person, including one with no apparent symptoms. Cholera came to be linked with the goddess Kali and offerings of goats and buffaloes were made to appease her. Elsewhere in India cholera was known as *Olai-candi*, *Ola Bibi*, or *Mari mai*, or was worshipped as the male deity, Hardaur Lala.

From 1905 there were outbreaks of cholera at one place or other in the Sadar Sub-Division throughout the year. The epidemic was of a rather virulent form in the town of Baripada and in the two months of April and May 1905, 77 persons succumbed to the disease. 204 deaths were reported from the interior of the Sadar Sub-Division. Olmara reported 47 and Baisinga 181. Most of the cases appeared to have originated from pilgrims returned from Puri. Active preventive measures were taken as far as possible. This together with the peculiar nature of the soil and climate and timely rain prevented the epidemic from taking root at Baripada.

The year 1908-09 the public health was not satisfactory as compared with that of the preceding two years. There was moreover an outbreak of cholera in Mayurbhanj Proper and at Bahalda and Karanjia, 1,357 attacks and 1,105 deaths were reported. The spread of the disease was checked by the adoption of preventive sanitary measures. The public health was bad as the natural accompaniment of a year of scarcity when the people owing to high prices of food grains ruling in the market fell back upon unsuitable food.

After ten years the death rate and the number of deaths decreased nearly half, in 1920, due to cholera 638 deaths reported in the year - 205 deaths in the Sadar Sub-Division, 97 in Mayurbhanj, 299 in Panchpir and 37 in the Kaptipada Sub-Division. After a decade in 1930, only 17 cases of cholera reported, 6 at Thakurmunda in the Panchpir Sub-Division with two deaths and 8 within the jurisdiction of the Muruda Police Station in the Sadar Sub-Division with 6 deaths. No case of cholera was reported from the Bamanghati Sub-Division. In the year 1940, unlike the previous year, the condition of public health continued to remain very unsatisfactory in several parts of the state throughout the year, in spite of the adoption of all sorts of ameliorative measures. Cholera broke out in epidemic form in villages under Baisinga, Muruda, Bangriposi, Khunta and Udala Police Stations. In all 80 cases of cholera were reported from these Thanas, of which 56 proved fatal. Immediate and efficient prophylactic measures were taken in the affected areas. As a result, the disease could be brought under control with 56 deaths against 35 deaths out of 52 cases last year.

<table>
<thead>
<tr>
<th>Year</th>
<th>Attack</th>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>1956</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>1957</td>
<td>68</td>
<td>23</td>
</tr>
<tr>
<td>1958</td>
<td>208</td>
<td>89</td>
</tr>
<tr>
<td>1959</td>
<td>48</td>
<td>16</td>
</tr>
<tr>
<td>1960</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Total</td>
<td>350</td>
<td>140</td>
</tr>
</tbody>
</table>

In 1944, the public health was rather unsatisfactory at several parts of the state in spite of all measures taken to improve it. Cholera broke out in epidemic form in villages under the jurisdiction of Baripada, Kuliana, Bangriposi, Sulipada, Muruda, Olmara, Barasahi, Baisinga, Betnoti, Khunta, Udala, Rairangpur, Bahalda, Jashipur and Reruana Police Stations. In all 1,698 cases of cholera were reported of which 959 proved fatal. The Prevention of Cholera Regulation, 1943 had to be enforced to control the cholera epidemic of Baripada town and its suburbs. 

During the five years from 1955 to 1960, the people of Mayurbhanj suffered in cholera as 340 out of that 140 people lost their lives. The year 1958 was so fatal because 89 people lost their lives, the death rate was 0.02 in the year. From 1955 to 1958 the number of deaths rapidly increased from 2 to 89. And the very next year in 1959 it suddenly decreased as 16 nearly one fourth.

**Conclusion:**

During the period under study both in the colonial and post-colonial period, the health scenario remained same like uneven advance both under the colonialists and post-colonial times even in the two five year plan periods. It is really no doubt that vast number of lives could be saved due to the British medical or health care policy. But the health scenario had not changed phenomenally over the period and also even after 1947. It is proved in the statistics. Due to improper and unwillingness of the government official, the number of deaths was sometimes nil and sometimes so high. In the year 1904-05, 30 people lost their lives in smallpox, in 1959, 48 people died, the health scenario remained the same after more than five and a half decades. The scenario of cholera, due to this 50 people died in 1904-05 and after five and a half decades 16 people died due to this disease, we can say that the cholera condition remained same and unable to satisfactorily change. The colonial health care and medical policies were responsible for the health condition because the scenario remained same even in the post-colonial time during the period under study.

**References:**

1. The disease is also known by the Latin names Variola or Variolavera, derived from varius ("spotted") or varus ("pimple"). The last naturally occurring case of smallpox (Variola minor) was diagnosed on 26 October 1977.

2. Cholera is an infection of the intestine by the bacterium Vibrio cholerae. This may result in sunken eyes, cold skin, decreased skin elasticity, and wrinkling of the hands and feet. The dehydration may result in the skin turning bluish. Symptoms start two hours to five days after exposure.

3. The rulers of the Bhanj dynasty ruled over this state in unbroken succession since about the 9th century A.D. The name of the state under the early Bhanja rulers was Khijinga Mandala, named after the capital Khijinga Kotta.

4. The Santhal (also spelled as Santal, and formerly also spelt as Sontal or Sonthal) are a scheduled tribe of India, who live mainly in the states of Jharkhand, West Bengal, Bihar, Odisha, and Assam.


9. Jessore is a district in the southwestern region of Bangladesh. It is bordered by India to the west, Khulna District and Satkhira District to the
south, Magura and Narail to the east, and Jhenaidah District to the north.


11. Variola minor is of the genus orthopoxvirus, which are DNA viruses that replicate in the cytoplasm of the affected cell, rather than in its nucleus.

12. The Great Pox—commonly known as the French disease—brought a different kind of horror: instead of killing its victims rapidly, it endured in their bodies for years, causing acute pain, disfigurement, and ultimately an agonizing death. Yale University Press.


17. Ibid., p.68.

18. Mourbhanj, For the Year 1906-07, Baripada, p. 59.

19. Ibid., 1907-08, p. 62.

20. Ibid., 1908-09, p. 66.

21. Ibid., 1909-10, p. 60.


23. Mayurbhanj, For the Year 1917-18, Baripada, p. 46.

24. Ibid., 1919-20, p. 55.


26. Ibid., 1925-26, p. 79.

27. Ibid., 1926-27, p. 87.


29. Ibid., 1939-40, p. 115.

30. Ibid., 1944-45, p. 144.


32. Ibid., p. 436.

33. Vibrio cholerae is a Gram-negative, comma-shaped bacterium. Some strains of V. cholerae cause the disease cholera. V. cholerae is a facultative anaerobic organism and has a flagellum at one cell pole. V. cholerae was first isolated as the cause of cholera by Italian anatomist Filippo Pacini in 1854, but his discovery was not widely known until Robert Koch, working independently 30 years later, publicized the knowledge and the means of fighting the disease.

34. Symptoms may be chronic, relapsing or remitting. Asymptomatic conditions also exist (e.g. subclinical infections and, sometimes, high blood pressure).

35. Ramanna, p.125.

36. Mourbhanj, For the Year 1905-06, Baripada, p. 68.

37. Ibid., 1908-09, p. 66.


39. Ibid., 1930-31, p. 82.

40. Ibid., 1939-40, p. 115.

41. Ibid., 1943-44, p. 116.

42. Senapati, p. 436.

43. Ibid., 1905-06, p. 68.

44. Senapati, p. 434.

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