



A TERRIBLE EPIDEMIC BY HUGHLI FEVER IN THE SECOND HALF OF NINETEENTH CENTURY: A STUDY ON CHANGING HEALTH SYSTEM AND ENVIRONMENT

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Abstract: A dreadful epidemic was caused by Hughli fever in 1860s which ruined the Hughli district in various ways. Around 66% people died of the district within twelve years. Helms were depopulated overnight, countrymen migrated to different places to save their lives. The British Govt., local Zamindars tried to save the district but failed. The health system was damaged by the fever. Doctors and village *kabirajs* became puzzled looking the deaths. High price, poverty, scarcity of medicine, depress etc. were turn the people towards death. The social system almost brock down and all rushed to temple and *kabiraj* for survive. To control the epidemic the Govt. took several steps like digging new canal, destruction of forest, opening dispensary, import quinine, appointment of new doctors etc. The Hughli fever made change on socio-economic life, environmental, medical system, religious system etc. It is noteworthy that the British Govt. did neither exempted farmers from land revenue nor relief distributed in Hughli district. As a result, epidemic took demon character in 1860s to 1870s around twelve years.

Keywords: Fever, Epidemic, medicine, change, dispensary, kabiraj, The British Govt.

Introduction: The Hughli district was a small district of Bengal province in British India. An unknown fever affected the people dreadfully to the entire district of Hughli. The fever makes the terrible epidemic over the district in 1860s. The fever was a type of malarious fever. It was a part of Burdwan fever which was affected in Burdwan district in 1870s after the Hughli district. According to L. S. S.O' Malley the fever was continued twelve years and 650,000 people was died from the fever in between 1860 and 1872.¹ In the census of 1872 total population was 974,992 souls. Around 66.66% people was died the epidemic. In Burdwan district the death happened more than seven lakhs by the fever. The British Govt. took masers to rescue the people of Hughli which was very insufficient. People were suffering very in distresses. Lack of food, medicine, money and all-round howling of people made the district deplorable condition. People migrated to another place and many of villages were become desolated overnight. Worship of different deities were started by natives to save themselves from the fever. Different *canals* and rivers were dug, new drainages were made, many dispensaries establishment but no exemption from land revenue. The population dropped so much that it took the next four decades to replenish.

Literature Review of the Study: A few works have been done in medical ground basically on the Burdwan fever in 1870s causes, symptoms & treatments etc. Dr. Gopaul Chunder Roy, Dr. Surtherland, W. W. Hunter, L. S. S. O's Malley, J.G. French, D.G. Crawford and others wrote about the Epidemic fever in lower Bengal. They were doctors or gazette writers tried to find out the causes & medicine of the fever and made reports to the British Government during 1863 to 1870s. The change by the epidemic fever after 30 years later not be found in the writings of them. They had not paid attention on Hughli district where around seven lakh people died by the Hughli fever in 1860s.

Object of the Study: The study going to discover the history of Hughli fever epidemic occurred in Hughli district of Bengal province in British India. The fever made change socio-economic, geographical, health condition and environmental change in the district. The British Government also became puzzled to control the fever and large amount of quinine imported from Europe. The fever damaged the health system of the habitants etc. subjects are tried to highlight in the study.

Methodology: The study depends on basically on Indian Medical Gazetteers (1870 to 1911), Hughli Medical Gazetteers, statistical accounts of Bengal, District Gazetteers, various reports of doctors who were involved in treatment during the epidemic fever. Visiting the places where epidemic fever occurred and took interview of age-old persons. After collecting the data, I have analysed with research-based knowledge and final decision taken.

The Entrance of Epidemic Fever in Hughli District

“The skulls of Hume beings now strew the fields at every few yards’ distance”- Remark of Dr. Gopal Chunder Roy after visiting the epidemic places who was doctor and became puzzle going to treatment.² After attack the epidemic fever in Hughli in first phase (1863-64) the British Govt. appointed a special epidemic commission to find out the reasons and situation of the epidemic fever in Hughli district. Mentioning different doctor’s remarks Col. D. G. Crawford wrote in the Hughli Medical Gazetteers “The fever broke out at Mahamadpur in the Jessore district in 1824-25, attacked Nadiya district first in 1832 or 1833, causing great mortality at Ula in 1856, reached Chogda in 1857, and affected the villages on the east bank of the Hughli, in the 24-Paraganas, from 1859 to 1861. It crossed the river from Chogda to Tribeni, Bansberia, and the villages of north of Bandel, in 1857-59 (both dates are given by different reporters), reached Pandua in 1862, and Dwarbasini in 1863, spread along the Kana Nadi and Saraswati in 1864, and reached in Kana Damudar in 1866, and the east bank of the Damudar in 1867, having taken about ten years to cross the area lying between the Hughli and the Damudar. It spread across the Jahanabad (now Arambagh) thana in 1868, reaching Jahanabad town, on the east bank of the Dwarkeswar, in that year, and traversed Goghat thana in the year 1869 to 1871. The west bank of the Hughli in Serampur subdivision, was badly affected in 1871-73.”³ Altogether the fever was present in Hughli district for about twenty years, 1857-77, though no individual village suffered for that length of time, the usual duration in any one place being three to seven years, while a few villages, Dwarbasini for instance, suffered longer. The Burdwan district was first attacked in 1866 from Pandua near Maimari. Then Ghatal (now in Midnapore, but then it was in Hughli) was attacked in 1868 and crossed the boundary the district and reached in Midnapore in 1870.⁴ In January 1863, Dr. J. Elliot, Civil Assistant Surgeon of Hughli was placed on special duty to enquire into the epidemic fever prevailing in Nadiya and Burdwan and in 18th March 1863 he submitted the report. He remarked in his report that “the fever first broke out at Muhamadpur, in the Jessore district, in 1824 or 1825, in the form of a peculiar fever, called by the natives Jorbikar fever without sense, i.e., fever attended with delirium. A large village named Gudghat, twelve miles north of Jessore station, suffered very severely in 1855 or 1856. Nadiya district was first affected in 1832 or 1833, the large and populous village of Gudkhali being the first to suffer in the district; the same village was again very severally attacked in 1840. In 1845-46 this fever was the cause of great mortality at Srinagar, between Bongaon and Chogda. In the beginning of the rains of 1856 Birnagar or Ula, a very large and populous village about three miles north of Ranaghat, was attacked. It is stated that, out of 18000 inhabitants of this village, 10000 died during the next six years. During the three following years, 1857-60, the epidemic spread generally over the sourthan parts of the Nadiya, the north-east of Hugli, and the whole of the Baraset district now a sub-division of the 24-Paraganas.

Chogda was reached in July 1857, Kanchapara during the rains of 1859, Naihati a little later in the same year, Bhatpara in 1860, Jagadal and Garulia in 1861. The villages south of Garulia, Ishapur, Chanak (Barrackpore), Titagarh and Khardaha suffered more than usual from fever in 1862, but up to the date of the report, had not suffered from an epidemic. Epidemic. Baraset civil station and the surrounding villages were attacked in July 1860, the epidemic spread to south east as far as Rajarhat, and Majergram (Duttopkhar).⁵ In 1876 W. W. Hunter also remarked same regarding the origin of the epidemic fever. He pointed out that “the malarious fever, which since 1861 has been raging in Hugli and Burdwan, is the principal endemic disease in the district.” He reported “the fever first appeared in at Muhammadpur in 1824-1825 of Jessore district. It broke out as an epidemic among a body of prisoners employed in road-making. After ravaging Muhammadpur, and completely desolating that one prosperous little town the fever spread over the whole of Jessore: subsequently, in 1856, it appeared in Nadiya, and in 1861 in the 24 Parganas, carrying death and destruction along with it. In the same year it crossed the Hugli, and first showed itself in the populous and thriving villages of Bansberia, Tribeni and Naya Sarai of Hugli district.” Then the epidemic spread over the district and made tremendous mortality.

Reason Behind the Epidemic Fever in Hughli

The climate of Hughli district was damp and moist. That is why the malaria was always the chief disease of the district and people suffered in malarial fever.⁶ The British Govt. tried to investigate the reason of the behind the epidemic fever. A large number doctors were engaged to identify the causes. Dr. Elliot wrote in his report on 18th March 1963 that various cases were responsible for the fever. He pointed out the chief reasons through the nine heading.

- i. Site of villages whether on *bhils*, *khals*, or large rivers, does not seem to make a much difference as might be expected; except that the greatest suffers have been the villages on the banks of stagnant rivers filled with vegetation and weeds.
- ii. Nature of soil: the soil of Nadiya is much more sandy and drier than that of Hughli, but the epidemic prevailed equality in both.
- iii. Want of cultivation of lands adjoining houses and villages, and the growth and decay on such lands of thick vegetation.
- iv. Overcrowding of houses, owing to increase of population, huts being huddled together in villages, obstructing streets, paths, and drains, and preventing ventilation.
- v. Cultivation of bamboos, plantains, &c., in close proximity to houses.
- vi. Bad water, the best and largest tanks gradually silting up; while the smaller ones are often covered by trees, which prevent the access of sun and air, and injure the water by the fall of their leaves. Also, the indiscriminate use of tanks for bathing, washing cloths and animals, &c., as well as for drinking.
- vii. Drainage; its complete absence.
- viii. Burial-grounds and burning ghats; their too close proximity to inhabited houses.
- ix. As contributory causes are given (a) bad or insufficient food; (b) want of clothing; (c) want of conservancy; (d) sleeping on damp ground, instead of on cots (though it is remarked that those who slept on upper stories suffered no less than those who slept on the ground); fear and anxiety.⁷

Many among the doctors thought that jungle or bushes near the habitants also responsible for the fever. So, they suggested to cut down the jungles. On the other hand, W. W. Hunter mentioned some reasons behind the epidemic fever in Hughli district. These are -

1. Use of bad water has been repeatedly stated to be the prime cause of the outbreak, and, indeed, in very many villages the water, which is applied by the people by the all manner of domestic uses, is as impure and foul as can well be conceived. Tanks constructed years ago have now become shallow, and their water is impregnated with decomposing vegetable matter and filth of all kinds.....
2. Proximity to marshes has also brought forward as a cause of intensity of the disease in certain localities. The sanitary commissioner states that, although it is almost beyond question that there does exist some connection between the proximity stagnant marshes and the more than usual prevalence of malarious fever, yet that it is only certain conditions of swampy land which seem to favour the generation of the disease, and that these conditions have not been determined with sufficient precision. For example, Dankuni, Chanditala and neighbouring villages were suffering....
3. Vegetable decomposition is another much discussed question is, density of jungle and rank vegetation so vitiates the atmosphere and impedes its due circulation as to warrant its being regarded as one of the chief cause of the great fever visitations. 'This opinion,' says the Sanitary Commissioner, 'has been met by the statements, not easily controverted, that the prevalence of the disease and the density of the jungle are not invariably proportionate; that the affected district now, as compared with former years, do not present an unusual amount of vegetation; and that many parts of the country have been and are densely overgrown with under bush, where the villagers have not been affected with fever to an excessive degree.'
4. Defective conservancy and general insanitation were a much more important cause of fever than either the use of bad water, or existence of swamps or marshes, or the prevalence of jungle and rank vegetation. This question, however, is also disputed. The Sanitary Commission makes the following remarks: - 'Some are
5. Defective drainage system according to the report of Sanitary Commission of 12th May 1870, fever was rife due to defective drainage system and a lot of projects regarding canal digging and water supply were taken where Rs. 2,25,000 was approximate cost.
6. Poorness of food, bad hygienic conditions, excessive population of Hugli district were another reason in favour of the epidemic fever.⁸

Dr. James A. Green, the Civil Medical Officer of Serampore remarked on 7th Nov. 1873 regarding the Hugli fever that "*it has no doubt spread (fever) there by human intercourse, and the numerous cases taken down to Calcutta for treatment from the fever-stricken localities.*"⁹ Dr. Gopaul Chunder Roy a Surgeon and Medical Officer of Burdwan (1874) also wrote various reasons of the epidemic fever. According to him the causes were 1. Seasonal peculiarities as variation of temperature and moisture, 2. Want of sanitary arrangements in Bengal villages, 3. Dampness of soil, 4. Over-population and poverty, 5. Contagion and 6. Epidemic influence.¹⁰ A lot of doctors and administrators also remarks almost same of the epidemic fever.

Condition of Common People

The condition of common people was very awful and mortality by the fever was more than 50% in many places. A table is mentioned below where Hunter pointed out the terrible situation of the fever.

Statement showing the mortality due to fever in Hughli District ¹¹					
Sl no	Name of Village	Population before fever	Number of deaths	Population in 1870-71	Year in which the disease appeared
1	Shahbazar	3519	2176	1343	1868
2	Birampur	997	574	423	1868
3.	Baliguri	1937	1284	653	1868
4	SyampurJainagar	2123	1279	844	1868
5	Agarasarpara	935	479	456	1868
6	Dwarhata	4182	3045	1137	1867
7	Chandbati	1253	722	531	1867
8	Dipai	995	582	413	1867
9	Ala	1155	635	520	1869
10	Mahmudpur	1527	937	590	1869
11	Samaspur	3864	2737	1127	1869
12	Kaotal	1940	468	1472	1862
13	Shahganj	295	102	193	1862
14	Ujitnagar	182	71	111	1862
15	Gari Almarbagh	341	127	214	1862
16	Amirkhali	277	107	170	1862
17	Mirarhat	275	120	155	1862
18	Khamarpara	386	163	223	1962
19	Banshbari	2165	700	1465	1862
20	Sibpur	260	95	165	1862
21	Tribeni	1932	645	1287	1862
22	Naya Sarai	2377	1140	1237	1862
23	Dwarbasim	2743	1959	784	1864
24	Naricha	550	350	200	1863
25	ChakpurMohanbati	483	86	397	1869
26	Megsar	982	662	320	1865
27	Panduah	6961	5222	1739	1863
28	Harhmana	326	41	285	1865
29	Karpara	327	111	216	1865
30	Bejpara	655	134	521	1865
31	Nagarpara	232	73	159	1865
32	Bazarpara	128	34	94	1865
33	Daskhinpara	400	118	282	1865
34	Mirapara	289	68	221	1865
35	BalagaraNatagari, etc.	9755	2271	7484	1866
36	Kumarganj	1136	435	701	1866
37	Kendur	613	186	427	1866
38	Makarpol	577	70	507	1868
39	Dhaniakhali	1112	697	415	1869
40	Harpur	870	500	370	1869
41	Mirzanagar	2525	516	2009	1869
42	Kolara	691	400	291	1863
43	RuaNapara	250	170	80	1863
44	Batua	2000	1200	800	1863
45	Barrackpur	200	100	100	1863

46	Debanandpur	1800	1000	800	1863
47	Kalidanga	300	150	150	1863
48	Panchrakhi	300	175	125	1863
49	Krishnapur	451	133	318	1867
50	Hamidpur	256	49	207	1868
51	Kamiri	511	217	294	1868
52	Kantagaria	500	382	118	1866
53	Srirampur	200	90	110	1866
54	Nayapara	475	225	250	1866
55	Kanaidebpur	655	324	331	1864
56	Ramnagar	358	86	272	1865
57	Rajhat	2500	1400	1100	1863
58	Asua	187	68	119	1865
59	Nialbai	267	65	202	1865
60	Parambu	3125	2169	956	1869
	Total..	78607	40124	38483	
Average death rate 51.04%					

Indigenous Medical System

During the second half of the nineteenth century Hughli district the people almost all were depended on native medical practitioners *kabirajs* who made medicines from jungly vegetables, body parts of animals & reptiles and mineral kingdom. According to Hunter's report, sometimes patient died from wrong diagnosis and want of proper medicine. *Kabirajs* were not trained by the medical institute.¹² They were unable to cope the epidemic fever which was a demon fever to people and no medicine was effective during Hughli fever. Thousands of affected people became disoriented and rush to *kabiraj*, temple and masque to get relief. The Hindus were started to worship Devi Sitala, Lord Shiva, Kali and others at their village premises. The Tarakeswar temple was much crowded in epidemic time.

Economic Crisis

Gopaul Chunder Roy, W.W. Hunter and others admitted that the poverty was another reason of the fever. Poorness was shadow companion of the common people. In Hughli district zamindars were 1454 (in 1876) and big *ijaradars* were 74 and most of the people were farmer and agricultural labour, unemployed male 18646, unemployed female 518253, male children 242719, female children 189084.¹³ Rice was the principal crop of the district and three types of crops in a year was common like 1. *Boro* (spring rice), 2. *Aus orniali* (autumn rice) and 3. *Aman or haimantik* (winter rice). Different types of land quality and different outturn were there. Average outturn of paddy was 5 to 12 maunds per bigha land.¹⁴ The price of rice and essential commodities were very high where common people were suffered. The district was suffered by natural calamity like, famine (1866), draught (1865, 1840, 1851) and floods, super cyclone etc. These made high price of essential commodities. During the time of epidemic fever around 75% people fall in fever and agricultural production was badly affected in Hughli district. People suffered in malnutrition and decreased the immunity power. A list of rice price of Hughli district from 1850 to 1870 is given bellow.¹⁵

Year	Price of best paddy per Cwt.					Price of best rice per Cwt.					Price of common paddy per Cwt.					Price of common rice per Cwt.				
	s.	d.	to	s.	d.	s.	d.	to	s.	d.	s.	d.	to	s.	d.	s.	d.	to	s.	d.
1850	1	0.25	to	1	4.25	3	0.50	to	3	5	0	8.5	to	0	10.25	2	4.5	to	3	0.75
1851	1	0.25	to	1	4.25	3	0.25	to	3	5	0	8.5	to	0	10.25	2	8.5	to	3	0.75
1825	1	0.5	to	1	4.5	3	0.75	to	3	9	0	8.5	to	1	0.5	2	8.5	to	3	0.75
1853	1	4.5	to	1	8.5	3	5	to	4	1	1	0.5	to	1	4.5	2	8.5	to	3	5
1854	1	4.5	to	1	8.5	30	5	to	4	1	1	0.5	to	1	4.5	3	0.75	to	3	5
1855	1	8.5	to	2	0.5	3	9	to	4	5	1	0.25	to	1	4.5	3	0.75	to	3	5
1856	1	8.5	to	2	0.5	3	9	to	4	5	1	4.25	to	1	8.5	3	0.75	to	3	9
1857	1	8.5	to	2	4.75	4	1	to	4	9.5	1	4.25	to	1	8.5	3	5	to	4	1
1858	2	0.5	to	2	4.75	4	1	to	5	1.5	1	4.25	to	1	8.5	3	5	to	4	5
1859	2	4.75	to	2	8.75	4	5	to	5	9.5	2	0.5	to	2	4.75	3	9	to	5	1.5
1860	2	4.75	to	2	8.75	4	5	to	5	9.5	2	0.5	to	2	4.75	3	9	to	5	1.5
1861	2	4.75	to	2	8.75	4	5	to	5	9.5	2	0.5	to	2	4.75	3	9	to	5	1.5
1862	2	4.75	to	2	8.75	4	9.25	to	6	1.25	2	0.5	to	2	4.75	4	1	to	5	1.5
1863	3	0.75	to	3	5	5	5.5	to	6	5.75	2	4.75	to	2	8.75	4	9.5	to	5	9.5
1864	3	0.75	to	3	9	6	9.75	to	8	2.25	2	8.75	to	3	0.75	5	5.5	to	6	9.75
1865	4	1	to	4	9.25	8	2.25	to	9	6.5	3	5	to	4	1	6	9.75	to	8	2.25
1866	5	5.5	to	6	9.75	13	8	to	17	9	4	9.25	to	6	1.75	10	11	to	15	0.25
1867	3	0.75	to	3	9	6	9.75	to	8	2.25	2	4.75	to	3	0.75	5	5.25	to	6	9.75
1868	3	0.75	to	3	9	6	9.75	to	8	2.25	2	4.75	to	3	0.75	5	5.25	to	6	9.75
1869	3	0.75	to	3	9	6	9.75	to	8	2.25	2	4.75	to	3	0.75	5	5.25	to	6	9.75
1870	2	8.75	to	3	5	5	5.5	to	6	9.75	2	0.5	to	2	8.75	4	9.5	to	5	9.5

Treatment and Dispensaries During Hughli Fever

Local landlords were puzzled looking the deaths by Hughli fever and created pressure to the British Government to control the terrible condition. The Govt. sent many doctors and formed an epidemic commission in the district in 1863-64. For 12 year (1864- 1876) the Hughli fever epidemic continued as demon character in the district. After getting the report of the commission the Govt. established 51 temporary dispensaries in different parts of the district to ride on the epidemic¹⁶. These were -

No	Place	Thana	Date of opening	Date of closing	remarks
1	Tribeni (1 st)	Hugli	1863	30 th April 1865	<p>Maintain for some years as a private dispensary.</p> <p>In addition to and in connection with the permanent</p>
2	Pandua (1 st)	Pandua	1863	30 th April 1865	
3	Balagarh	Balagarh	1863	30 th April 1865	
4	Gupti para	Balagarh	1863	30 th April 1865	
5	Somra	Balagarh	1863	30 th April 1865	
6	Dhaniakhali	Dhaniakhali	15 th July 1869	15 th Feb. 1870	
7	Singur	Singur	15 th July 1869	15 th Feb. 1870	
8	Pandua (2 nd)	Pandua	15 th July 1869	15 th Feb. 1870	
9	Kristonagar (Jangipara 1 st)	Kristonagar	15 th July 1869	15 th Feb. 1870	
10	Mahuat	Pandua	15 th July 1869	15 th Feb. 1870	
11	Basuri	Haripal	15 th July 1869	15 th Feb. 1870	
12	Khanakul (1 st)	Khanakul	15 th July 1869	15 th Feb. 1870	
13	Jahanabad	Jahanabad	15 th July 1869	15 th Feb. 1870	
14	Ghatal	Ghatal	15 th July 1869	15 th Feb. 1870	
15	Balagarh (2 nd)	Balagarh	15 th July 1869	15 th Feb. 1870	
16	Hughli	Hughli	15 th July 1869	15 th Feb. 1870	
17	Dwarbasini	Pandua	15 th July 1869	15 th Feb. 1870	

18	Serampur	Serampur	15 th July 1869	15 th Feb. 1870	dispensaries at these places. (16-20)
19	Sultangachi	Pobla	15 th July 1869	15 th Feb. 1870	
20	Baidyabati	Serampur	15 th July 1869	15 th Feb. 1870	Made permanent 5 th Dec. 1871 an itinerant dispensary kept up till 14 th Mar. 1872.
21	Jahanabad (2 nd)	Jahanabad	15 th Aug. 1870	5 th Dec. 1871	
22	Dhaniakhali (2 nd)	Dhaniakhali	7 th Aug. 1871	1 st Oct. 1873	Made permanent.
23	Balagarh (3 rd)	Balagarh	8 th Oct. 1871	29 th Feb. 1872	
24	British Chandarnagar(1 st)	Hughli	8 th Oct. 1871	19 th Feb. 1872	Transferred to Bardwan 1 st Jul. 1872.
25	Bali	Goghat	1 st Dec. 1871	19 th Feb. 1876	
26	Singur (2 nd)	Singur	1 st Dec. 1871	19 th Apr. 1872	Transferred to Midnapur 1 st Jul. 1872.
27	Kristonagar (2 nd)	Kristonagar	1 st Dec. 1871	19 th Dec. 1872	
28	Chandrakona	Chandrakona	8 th Jan. 1872	19 th Oct. 1872	Transferred to Bardwan 1 st Jul. 1872.
29	Mayapur	Jahanabad	8 th Jan. 1872	15 th March. 1875	
30	Chandur	Jahanabad	8 th April 1872	5 th Oct. 1872	Made permanent.
31	Hasnan (1 st)	Dhaniakhali	15 th April 1872	8 th April 1873	
32	Babnan (Badinan)	Dhaniakhali	27 th May 1872	1 st Dec. 1872	Bardwan 1 st Jul. 1872.
33	Bandipur	Haripal	8 th Jun. 1872	1872	
34	Kamarpukhar	Goghat	27 th Sep. 1872	15 th Dec. 1875	Bardwan 1 st Jul. 1872.
35	Mandalghati	Goghat	19 th Sep. 1872	6 th Oct. 1872	
36	Hajipur	Goghat	5 th Oct. 1872	15 th March 1875	Transferred to Haripal.
37	Bhadur	Goghat	6 th Oct. 1872	6 th Jan. 1873	
38	Khanakul (2 nd)	Khanakul	Oct. 1872	Dec. 1872	Transferred to Howrah Nov. 1873.
39	British Chandarnagar (2 nd)	Hughli	12 th Nov. 1872	20 th Feb. 1873	
40	Gurup (1 st)	Dhanikhali	15 th Nov. 1872	15 th April 1873	Bardwan 1 st Jul. 1872.
41	Rishra	Serampur	Dec. 1872	15 th Feb. 1873	
42	Haripal	Haripal	Dec. 1872	15 th Feb. 1873	Bardwan 1 st Jul. 1872; made permanent, 1 st Jan. 1876.
43	Gourhati	Jahanabad	17 th Dec. 1872	15 th March 1875	
44	Tribeni (2 nd)	Hughli	7 th Jan. 1873	1 st April 1873	Bardwan 1 st Jul. 1872; made permanent, 1 st Jan. 1876.
45	Khanakul (3 rd)	Khanakul	Jan. 1873	Nov. 1873	
46	Badanganj	Goghat	30 th Oct. 1873	31 st Dec. 1875	Bardwan 1 st Jul. 1872; made permanent, 1 st Jan. 1876.
47	Patul	Chanditola	11 th dec. 1873	1 st Jan. 1874	
48	Hasnan (2 nd)	Dhaniakhali	1 st Jan. 1874	28 th Feb. 1874	Bardwan 1 st Jul. 1872; made permanent, 1 st Jan. 1876.
49	Gurup (2 nd)	Dhaniakhali	1 st Jan. 1874	28 th Feb. 1874	
50	Mandara	Dhaniakhali	1 st July 1874	30 th Sep. 1874	Bardwan 1 st Jul. 1872; made permanent, 1 st Jan. 1876.
51	Phurphura	Chandital	July 1874	Sep. 1874	

Geographical Change

The consequence of the Hughli fever was so fatal and it made various change on the region like geographical change besides socio-economic and environmental changes. The British government took an important decision for digging up various canals, khal, drain, jhil to supply fresh water on the epidemic places. In 1881, the Eden canal was open which took off from the damodar above Burdwan town and falls into Kana Nadi (Kana Damodar) at Jamalpur. The Canal named from a former lieutenant Governor of Bengal Sir Ashley Eden. The object of the canal was sanitary

improvement, not for irrigation. But it became helpful for irrigation later and a large amount of money was collected as land revenue after getting good crop nearby canal areas in 1901 and onwards.¹⁷ In December 1894, the District Board submitted a scheme for Kousiki canal which was 18.66 miles long and estimate cost was Rs 72,000. The board was unable to pay the amount. Then a wealthy Calcutta merchant named Babu Bama Charan Dhar of Haripal contributed Rs. 30,000 looking the epidemic situation and finally the canal completed.¹⁸ According to the report of Mr. O' Malley that "the ravages of Burdwan fever having drawn attention to the unhealthy state of the district, Mr. Adley, C.E., was deputed by Government in 1869 to report whether want of drainage had caused or intensified the prevailing fever."¹⁹ After that a number of canal, khal, jhil, drainages were constructed and the Baidyabatikhal, Bally khal, Dankunikhal etc. were very important in this regards. It may be said that the river system of Hughli district had been changed in various ways after the Hughli fever.

Changing Health System: the Hughli fever destroyed the entire health system in the district and people lost their immunity power, as the consequence high death rate was noticed still after the epidemic.²⁰ Malarial fever was common and Pneumonia, pleurisy, small pox, cholera, plague etc. were disturbing the people. After the epidemic fever almost, all dispensaries were closed and only 16 Govt. and 4 private dispensaries were existed in 1912.²¹ The British Government tried to control the diseases by passing different Vaccine and Inoculation Acts. (like 1869, 1865, 1880, 1892 etc.). The inhabitants were forced to take vaccines, and the vaccine department was formed.²² Various doctors and medical persons were appointed from England. Beside the Government, local landlords and Mahajans also took great efforts to establish hospitals and dispensaries in different parts of Hughli. They contributed big amounts of money to improve the medical system and as the previous epidemic situations not return again there. A few names among the dedicated Zamindars were Mukharji family of Uttarpara, Babu Bihari Lal Mukharji of Bainchi, Srinarayan Kundu, Babu Girish Chandra Chatterji, Bholanath Bose, Srimati Sushila Devi and so on.²³ The Hughli fever taught the people that kabiraji and herbal medicines was not fruitful as like as allopathic medicines.

Socio-economic and Environmental Change

Hughli made vast change in socio-economic aspects. Different types of rumour circulated among the humble villagers who were affected badly. They were started to worship various deities like Sital, Lord shiva, Kali, Radha Krishna, etc. which was written by L.S.S.O'Malley. Tarakeswar temple was much crowded by disappointing persons, they prayed for survived. The death by Hughli fever was 75% in many villages, so fear and penic was involved among the habitants. Some places were desolate overnight and people moved to secure villages. The fever continued over 12 years and 6.5 lakhs died. O'Malley pointed out that "*the fever reduced the vitality of the survivors, thus diminishing the birth rate, and also forced a number of its inhabitants to leave the district for healthier localities.*"²⁴ On the other hand Surgn-Capt. Leonard Rogers remarked in Indian Medical Gazetteers in November 1897 that "in some places completely depopulating whole tracts of country, while there is good reason to believe that in former centuries no less destructive epidemics of a similar nature have occurred, while the extraordinary influences which gave rise to these may at any time recure with a like result."²⁵ Economical it affected greatly on the production. Crises of food and money was the common picture to the villages. O'Malley also remarked regarding this matter that "the ravages of the disease have not yet (1912) been repaired, the ruined villages have not yet been rebuild, jungle still flourishes where populous hamlets once stood, and while many of those who fled before the fever have not returned."²⁶ The fever changed the ecosystem of the habitants in Hughli district and reduced the population. After 30 years the previous figure of the population not returned.

In 1872 population was 1,119,631, and it was stand 1,090,097 in 1901.²⁷ Doctors and the Sanitary Commission's report blamed that the jungle and marshes were responsible for the epidemic fever. So, large area of natural jungle had been cleared and marshy land also removed for healthiest environment. Thus, the environment of the district had been transformed in various ways.

Conclusion:

In 2020, during the Covid-19 endemic situation remembered the memories of Burdwan fever's deaths and panic. Administrators and the doctors took lessons from the Hughli fever (or Burdwan fever) to control the endemic situation. The British Government took few steps reduce deplorable condition of Hughli fever opening some temporary dispensaries and making well drainage system of canal system in the district. But the Govt. not reduced or exempted the revenue or tax for benefit of affected people. No relief centre was introduced and a large amount of people perished from hunger and malnutrition. In spite of economic crisis, the British Government collected larger amount of money as land revenue than previous years during the epidemic in Hughli district. Finally, it may be said that, if the Government had tried to eradicate the epidemic with human sympathy, so many people would not have died.

Reference:

- ¹ O'Malley, L.S.S; Bengal District Gazetteers Hooghly, Bengal Secretariate Book Depot, Calcutta, 1912, p. 92.
- ² Roy, Gopaul Chunder; *Causes Symptoms and Treatment of Burdwan Fever of the Epidemic Fever of Lower Bengal*, J.& A. Churchill, New Burlington Street, London, 1876, p.1.
- ³ Crawford, Col. D.G, Hughli Medical Gazetteers, Bengal Secretariate Press, Calcutta, 1903, p. 113.
- ⁴ Ibid.
- ⁵ Ibid, p.114.
- ⁶ Crawford, Col. D.G, Hughli Medical Gazetteers, Bengal Secretariate Press, Calcutta, 1903, p. 112.
- ⁷ Crawford, Col. D.G, Hughli Medical Gazetteers, Bengal Secretariate Press, Calcutta, 1903, pp. 115-116.
- ⁸ Hunter, W.W; *A Statistical Account of Bengal*, Vol—III, District of Midnapur and Hugli, Trubner & Co., London, 1876, pp. 419-433.
- ⁹ The report of Dr. James A. Green, (the Civil Medical Officer of Serampore) to the Deputy Surgeon-General, Presidency Circle, letter no. 521, dated Sepampore, the 7th November 1873, in *The Indian Medical Gazetteers*, March 2, 1874, page no. 74,
- ¹⁰ Roy, Gopaul Chunder; *Causes Symptoms and Treatment of Burdwan Fever of the Epidemic Fever of Lower Bengal*, J.& A. Churchill, New Burlington Street, London, 1876, pp. 12-13.
- ¹¹ Hunter, W.W; *A Statistical Account of Bengal*, Vol—III, District of Midnapur and Hugli, Trubner & Co., London, 1876, p. 437.
- ¹² Aforesaid Hunter's report, p. 438.
- ¹³ Aforesaid Hunter's report, pp.277-280.
- ¹⁴ O'Malley, L.S.S; Bengal District Gazetteers Hooghly, Bengal Secretariate Book Depot, Calcutta, 1912, p.141.
- ¹⁵ Hunter, W.W; *A Statistical Account of Bengal*, Vol—III, District of Midnapur and Hugli, Trubner & Co., London, 1876, p.345.
- ¹⁶ Crawford, Col. D.G, Hughli Medical Gazetteers, Bengal Secretariate Press, Calcutta, 1903, pp. 174-175.
- ¹⁷ O'Malley, L.S.S; Bengal District Gazetteers Hooghly, Bengal Secretariate Book Depot, Calcutta, 1912, pp. 159-160.

¹⁸ Ibid, p. 161.

¹⁹ Ibid.

²⁰ Ibid, p.126.

²¹ Ibid, p.132.

²² Ibid, p.131.

²³ Ibid, p.133.

²⁴ Ibid, p. 92.

²⁵ Report of Surgn-Capt. Leonard Rogers, '*The Lower Bengal (Burdwan) Epidemic Fever Reviewed and Compared with the Present Assam Epidemic malarial Fever (Kala-azar)*' in Indian Medical Gazetteers, November 1897, p.401.

²⁶ O'Malley, op. cit., p. 92.

²⁷ Ibid.
