

Administration of Smallpox Vaccination under the Colonial Orissa

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ABSTRACT- The British introduced allopathy medicine in India. Initially, the Western medicine enclave only within the officers and military of British later makes it extend to Indian for several purposes, the only benefit of them in various facets. Here I am trying to reveal the history of the vaccine under the British Raj in Orissa. Oriya speaking people were segmented under the several presidencies viz, Madras, Bengal, and Nagpur administration that south, eastern, and Western Orissa, respectively. Orissa was one of fully clouded state of smallpox in the early colonial rule. Hence the British used a vaccine, especially against smallpox. But the indigenous people were not merely ready to take a vaccine against smallpox, even though the people died of it. Eventually, the British introduced several policies that compulsory as well as sometimes voluntary. The main objective of this paper is trying to understand the administration of vaccination in colonial Orissa. Secondly, how the indigenous people responded to the vaccination administration, this study seeks made use of primary sources of Orissa in public health especially Vaccination reports.

Small-pox used to be a dreaded disease since immemorial in human civilization and one of the oldest disease in the record of history.¹ Small-pox has remained in India as well as in the world since ancient times, claiming a huge toll and warp every year.² Among several diseases like cholera, Malaria, Plague, Leprosy, the most dangerous condition was smallpox in the time of the colonial regime in India. Smallpox was one of enormous killer disease-causing misery and suffering in various ways of mortality, disfigurement, and blindness. Smallpox spread through the variola virus, which declares by Newell, the inspector of sanitation in the colonial government in the Lahore range. Especially said that smallpox spread through the air; it's very capable of transmitting from

¹ Anil Kumar, *Medicine and the Raj; British Medical Policy in India, 1835-1911*, New Delhi, Sage Publication, 1998, p.162.

² O.P. Jaggi, *History of Science, Technology and Medicine in India, Vol.XII, Western Medicine in India: Epidemic and other Tropical Diseases*, Delhi Lucknow, Atma Ram and Sons, 1979, p.123.

one person to another even.³ The invention of the smallpox vaccine to protect smallpox, by Edward Jenner invented a method to prevent smallpox in 1796 at first and came to India in 1803. Vaccinated at first on June 14, 1802, to a young boy, gradually came to other parts of India. The Oriya people got the vaccine through the Bengal administration at first.⁴

The Western medical practice came to India with British Imperialism.⁵ Secondly, the concept of sanitation commenced in India first time officially during the Colonial administration in India. In the recent trends in Modern Indian history, the importance of medicine and public health are emerging areas of study. The history of public health and sanitation in Orissa under the British Raj is a fascinating one and significant as well. Oriya is the people from Orissa and Orissa existing in the eastern part of India, and this specific state called the place of Lord Jagannath. Ralph Waldo Emerson says, “the first wealth is health” is that the reason, more importance is being given to public health and sanitation in all the countries across the world since long back. The paper focuses on the vaccination administration by the colonial government, in Orissa which has played a vital role in health and medical care in Orissa especially smallpox. Second Thus, the history of medicine constitutes an integral part of the history of human civilization, giving an account of human efforts to deal with illness and therapy in specific historical settings. However, my study also proposes to provide some historical views to the response of indigenous society towards the colonial medical policies and practices.

The importance of this study is to objectify the Western medicine giving relief from various diseases and saved thousands of lives. The colonial administration made various vaccination policies for the Preventive measure for smallpox in England commence in 1715. But Bengal Presidency before the arrival of colonial administration in Bengal prevention care was exited with religious stand (Maa Sitala Goddess).⁶ The colonial vaccine implemented to the north part of Orissa, which was under the Bengal Presidency since 1803. At the same time, other people of the state didn't get this same policy. Bengal presidency commenced first-time compulsory vaccination in 1880. The Madras presidency begins mandatory vaccine in 1920, the same plan intervein in the

³ Newell A.G. *The Duties of Sanitary Inspectors in India, Lahore: Government Press.* (got it from ³ Sanjoy Bhattacharya, *From Foe to Friend: Geographical and Environmental factors and the Control and eradication of smallpox in India.*

⁴ *Annual Public Health report 1933 and the Annual vaccination Report for the year 1933-34, Acc No-33786, Bihar and Orissa Doc.*

⁵ Waltraud Ernst, Biswamay Pati, and T.V. Sekhar (Ed.), *Health and Medicine in the Indian Princely State 1850-1950*; London and New York, Routledge,

⁶ Anil Kumar, *Medicine and the Raj; British Medical Policy in India, 1835-1911*, New Delhi, Sage Publication, 1998, p.162.

South part of the state.⁷ Before compulsory vaccination in specific places, there were vaccine but may not be mandatory. We could say the people have not interested in this vaccine; hence, the British used to administer it by the compulsory vaccine.

Western medicine was characterized as “Scientific Western Medicine,” which introduced in India with the colonial approach⁸ and also is considered as the benchmark of a higher civilization.⁹ Orissa instigates Western medicine in the 19th century officially at first time. After the introduction of Western medicine in India, gradually indigenous methods of medicine and practice steadily deprived of the country because to provide lack of facility to practitioners. And also Contrasted indigenous medicine and Western medicine; subsequently, indigenous medicine was unable to cope with Western medicine. Lose of priority of indigenous medicine for the reason that Western medicine always prevailed through institutions and intervention of various policies, which sometimes by force or voluntarily. This was one of the significant causes to lead to the failure of indigenous medicine. For instance, the disease smallpox was indigenous, which occur the grace of Maa Sitala Goddess, hence the method of treatment also traditional ways.¹⁰ In the indigenous society, there were many conventional customs to cure smallpox. But while the British came to India, they commenced vaccines to cure smallpox, which was very weird for indigenous people. The Smallpox vaccination was introduced in India at first in Bombay in 1802 by the British.¹¹ The arrival of the smallpox vaccine brought about significant changes in the field of health and sanitation in India.¹² The vaccination was voluntary in colonial Orissa but later made it compulsory hence gradually, variolation disappears rapidly after the British introduction of vaccination. Even more resolute actions were taken by the Vaccination Act of 1880 in the Bengal vaccination Act to outlaw variolation and make vaccination compulsory in such designated areas of Orissa like municipalities and cantonments of colonies. Especially in 1880, in the North Orissa, vaccination

⁷ *Annual Public Health report 1933 and the Annual vaccination Report for the year 1933-34*, Acc No-33786, Bihar and Orissa Doc.

⁸ J.R. John Hume, *Colonialism and Sanitary Medicine: The Development of Preventive Health Policy in the Punjab, 1860 to 190 in Modern Asian Studies*, Vol.XX, 1986, p.703.

⁹ David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth Century India*, University of California Press, Berkley, 1993.

¹⁰ O.P. Jaggi, *History of Science, Technology and Medicine in India, Vol.XII, Western Medicine in India: Epidemic and other Tropical Diseases*, Delhi Lucknow, Atma Ram and Sons, 1979.

¹¹ Chandrakant Lahariya, *A brief history of vaccines & vaccination in India*, Indian J Med Res 139, April 2014, pp 491-511

was made mandatory by the Bengal Presidency in municipality areas and south Orissa, by the Madras presidency, commenced on 24 May 1934, in specific areas, that Union Board(UB), Viz. Koraput U.B., Rayagada U.B., Nawarangpur U.B., Jeypore U.B., Gunupur U.B., Kotpad U.B., and Gudari U.B. was¹³ enforcing the compulsory vaccination in the agency tract (Koraput district).¹⁴ Subsequently, the British were capable of suppressing the once widespread practice of variolation in the Nineteenth Century effectively.¹⁵

From the above discussion, we can understand the implementation of the vaccine in British Orissa were differ from place to place because the dismemberment of the extensive Orissa by colonial rule, the Empire began only after 1568. That's the only region of the implementation of vaccination were differs with time and space. Orissa was under the British provinces partly, South, North, and Western Orissa. The Afghans, the Mughals, and the Marathas, who came one after another, failed to restore the political unity. Under such circumstances, the British East India Company occupied the Orissa part by part. It started at; first, the south Orissa came under the British with the occupation of Ganjam region in 1766 which placed under the governance of Madras Presidency, the coastal part, and in 1803, it was tagged to Bengal Presidency, and eventually, the Sambalpur area in 1849, which put under Nagpur Presidency in 1862.¹⁶ In this way, Oriya-speaking people were placed under three different administrations; thus, the people of Orissa recognized as neglected, insignificant, and more minority groups among others. The Orissa Division added to Bihar, and Bihar-Orissa Province was created in 1912, while Ganjam and Vizianagaram Agency remained under the Madras Presidency. And Koraput was made a separate district in 1936.¹⁷ Various departments and new development policies governed all the colonial subjects in India after in 1858, India was under the direct crown rule. After the colonial government in 1947, like immediately after independence, massively medical measures were taken in the hilly and forest regions, where the government officials were reluctant to serve the native people because of transport and other social issues. Therefore, the government offered special allowances to the outside employees, which were also called the

¹² Niels Brimnes, *Variolation, Vaccination and Popular Resistance in Early Colonial South India*, p.219.

¹³ *Government of Orissa, Department of Public Health branch, 1941, Acc No-7332.*

¹⁴ Koraput district Gazetteer

¹⁵ David Arnold, *The New Cambridge History of India: Science, Technology and Medicine in Colonial India*, UK, Cambridge University Press, 2000, p.71.

¹⁶ D.B. Mishra, *Concise History of Orissa*, Kalyani Publishers, Cuttack, 2011.

¹⁷ R.C.S. Bwll, ICS, Imperial gazetteer Koraput, Superintendent Orissa Government Press, Cuttack 1945.

“agency allowances.”¹⁸ The situation was reflected in South Orissa particularly in Koraput. And Ganjam was the first district in the state to be occupied by the British in 1766, but in the case of public health first government hospital in this district was established in 1881 at Sorada and a dispensary at Gadabandha.¹⁹ The Indian society was loaded with epidemics such as Cholera, Plague, Diarrhoea, Dysentery, Smallpox, and other diseases. The data of the 19th and 20th centuries indicate that epidemics and famines had caused thousands of deaths.

In the district of North Orissa, namely Puri, Cuttack, and Baleswar, vaccination is neither free nor compulsory except in the municipal areas. In the municipality of North Orissa, under the Bengal Vaccination Act, 1880, as amended by the Bengal Act, II, of primary vaccination was compulsory and it was free at the vaccination depots established in different parts of the municipal area. In every *elakha*, (area), there was a single vaccination depot, and it was established where the place was inaccessible for all. The vaccination depot was for the interior areas people, especially in the north part of Orissa.

On the other hand, municipal areas people were unwilling to go to the depot for vaccination. Ultimately, while vaccinator used to come home for immunization, some amount of fees charged by vaccinators as 4anna per head subject to a maximum of 8 Anna for the whole family was charged by the municipal law.²⁰ In the rural areas of the north Orissa districts, except in Puri, vaccination is neither compulsory nor free. Because the colonial contact was with Puri most of the time as trade and administrator as well, wherever they used to stay with the army, they need sanitize with the surround as preventive care. In Puri, the Bengal Vaccination Act of 1880 came into force, and vaccination was made compulsory (especially Puri Jagannath temple). It was free for the injection performed at public vaccination station, but for protection elsewhere other than at public vaccination station, a nominal fee was charged. The amount realized as the cost was appropriated by the licensed vaccinator employed by the district Board and also called the licensed vaccinator and sometimes called traveler vaccinator because they used to travel one place to another for vaccination.

The profession of Vaccinator was as one of the excellent practice in society, but everybody not able to do. To make a vaccinator as a profession requires to undergo training followed by getting a

¹⁸R.C.S. Bwill, ICS, *Imperial gazetteer Koraput*, Superintendent Orissa Government Press, Cuttack 1945.

¹⁹ Shir Nrushinha Charan Behuria, (ed.). *Orissa District Gazzetteer of Ganjam*, Gazzetter Unit, Department of Revenue, Government of Orissa.

²⁰ *Government of Orissa, L.S.G. Department, Public Health Branch*, 1941, Acc No-7319.

license, then only one can be made himself as a vaccinator.²¹ The permit could be carried for six months in a year, that is, October to March, especially the lymph of vaccine need to keep in cold place and disease mostly spread in these months,²² which called the vaccination session. Every activity has a season. Similarly, vaccination has one of them, i.e., from October to March, six months in a year. Another six months of the year could say off-season. During this off-season, the vaccinator was employed for the verification of vital statistics and preparation of the list of unprotected people. The vaccinator used to place under the vaccination inspector in each district. Later, women were given a chance to become the vaccinator. The vaccination station or depot was run only by the Government and private agencies were not entitled to do so. Re-vaccination had necessary for the healthy society because vaccines worked only for seven years after expiring the reaction of it; re-vaccination was essential but the government of India in the 1880 India Act used to practice only with vaccination, not with re-vaccination. Primary vaccination gives relief only for seven years and that is the cause the government again made revaccination compulsory later. But all these vaccination policies did not accept simply by the indigenous people of Orissa. And do run away from the vaccine and resist the vaccine. Both are the way of not to accept the colonial vaccine in the early.

The people of Orissa were tribal belonging to the villages more than seventy percent village in Orissa under the colonial government. It is one of the most important grounds to keep away from the Western medicine. Apart from that, their belief system played a key role in deterring them from Western medicine. Again the tribal always depend on their belief, custom, and tradition to prevent the disease. Their belief was, if they go against the customary ritual, then nature will harm not only their families but also the whole community was the strong predominant notion. If smallpox occurs to anybody in the family, it was believed that Maa Sitala Goddess has come to home and treatment should be done exactly as per the customary traditional or conventional ways.²³ If the preventive measure doesn't go in traditional ways, the goddess will harm to whole the society was their belief.

Moreover, as the rural people were apathetic to the use of vaccination, even utterly free vaccination might be regarded by them as suspicion and also might stimulate stronger opposition and greater apathy. The tribal people were entirely reluctant to the vaccine, yet vaccinators make a vaccine to

²¹ *Government of Orissa, L.S.G. Department, Public Health Branch, 1937. Acc No-7163. Orissa and Bihar.*

²² *Government of Orissa department of public health branch, B, Progs. B, Progs. June 1941, Acc No. 7319 (Orissa and Bihar).*

²³ *O.P. Jaggi. Folk Medicine, Vol.3. Histroy of Science and technology in India, Athamaram and Sons, 1973.*

indigenous people, immediately they used to wash in the same place with some kind of juice and cow dung to spoil the reaction of the injection.²⁴ On the other side, the weak economy of Orissa some time stood an obstacle to getting the vaccine. The most crucial cause the distance of the depot; a lot of people were reluctant to go. When the vaccinator used to come to the village for vaccination, more than half of the children used to hide inside the caves and some time under the big pottery kept at home which used to store paddy for a long time. Because the nominal vaccination fee was 4 Annas per head, extended to a maximum of 8 Annas was charged for the whole family in the north Orissa and south Orissa two anna per girl child and four anna per boy child.²⁵ Afterward, the British made it either through a policy that voluntary or forcefully made it sure that everyone takes the vaccine. Because the indigenous were not aware of epidemic diseases like smallpox, which is also a contagious disease and since they did not have any idea of the disease, how dangerous it could be, they had no idea about the benefits of the Western medicine. The compulsory vaccination implemented by the British administration, to some extent, was good enough.

Nationalism: If we look at it with the lenses of nationalism, during the 1st half of the 20th century in Orissa, there was the wave of the swadeshi movement. Though the Paika Revolt of Orissa in 1817 has happened before the first Indian Independent of 1857 is not getting any significant place in Indian history, that might be a bit of hard luck for Oriya people.²⁶ This revolt shows how much people were aware of independence and the love for being swadeshi which ultimately reflecting the fact that they were knowingly not using Western medicine and various other things as well. The Swadeshi and nationalist movements were made very strong while Mahatma Gandhi came to Orissa on 23 March 1921, 19 August 1925, and 22 December 1928, and propagated the Khadi in Orissa (symbol of Swadeshi movement of Orissa).²⁷ After a few years, again, the British resumed a new kind of relationship with the people, a voluntary system of the vaccine like the fourth decade of the 20th century. It was just before the 2nd world war. They noticed one thing that the assumption of their intervention of vaccine was very least. Because the people on the day of vaccination used to hide in caves or inside the big potteries etc. that was also a cause of making it voluntary medicine, later in south Orissa no need to do compulsory because they himself came to depots after the

²⁴ *Government of Orissa department of public health branch*, B, Progs. September 1941, Nos. 13-17, Acc No-7332 OR and BR (Orissa and Bihar).

²⁵ *Annual Public Health report 1933 and the Annual vaccination Report for the year 1933-34*, Acc No.33786, Bihar and Orissa Doc.

²⁶ Bishnu Pradesh Panda, *Orissa History*, Giribala Publishing House, Bhubanesar, 2005.

²⁷ D.B. Mishra, *Concise History of Orissa*, Kalyani Publishers, Cuttack, 2011.

creation of separate province and took the vaccine in specific areas. The people of Puri were reluctant to visit free vaccination depots due to longer distances and poverty of the people and pay for the vaccination. Vaccination centers were so far away because it was a critical situation for the government some time to pay as remuneration to vaccinator. Hence, if the number of the center were increased in that particular area, it would reduce the number of visitors and then very few cases would come to the center. Each vaccinator was given a certain area and he would have to visit each and every village in his concern area with a fixed schedule beforehand. It appears from the study of the director of the health report that all the district Boards in North Orissa were in favor of introducing free and compulsory vaccination and revaccination. Because the people knew about the benefits of vaccination, they made themselves conscious and educated after the separate of Orissa province because of consciousness program, as well as a whole over India, for instance, the latter half of the 19th century, vaccination was acquired influential support from Indian practitioners of Western medicine. For instance, 350,000 vaccinations in British India in 1850, the number rose to 4.5 million in 1877 by 1890s, the annual number of vaccinations nearly 8 million and in the early 20th century it was 9 million.²⁸ It seems gradually the people accepting the vaccine though the Orissa people were not utterly ready to take Western medicine in early but after the separate province of Orissa data shows the number of vaccination increased high.

Remuneration of vaccinator: The District Board contacts to pay the vaccinators one anna for every vaccination done at a vaccination depot where no charges or fee was levied for the vaccination done. On the other hand, if the vaccinator visits any house for vaccine it charges 4 Anna per head and eight anna, a family in north Orissa but in south Orissa, was two anna per girl child and four anna per boy child, which was the remuneration of the vaccinator. Remuneration of the vaccinator under this scheme used to come from two sources viz. First one anna per operation paid by the district Board for vaccination done free at the depot: this income is considered to be sufficient to enable the vaccinator for the livelihood and of course, it depended upon the number of operations he performed at the depot concerned. Another source was the home vaccination charges realized which he used to deposit in the district Board.²⁹ The payment of this fee depended on how he had performed his duties. The allotment of elakhas to each vaccinator might be made both on the population and area basis. However, there were two drawbacks in the required establishments: first, the number of the vaccinators was considerably reduced and second, some of the hospital assistants,

²⁸ S.P.James, *Smallpox and Vaccination in British India*, Calcutta, 1909, pp.76-78.

²⁹ *Government of Orissa department of public health branch*, B, Progs. B, Progs. June 1941, Acc No. 7319 (Orissa and Bihar).

the people did not accept those who belonged to the lower caste.³⁰ But in Orissa compulsory vaccination began in 1920 in south Orissa and again did voluntarily just before the 2nd world war. The vaccine was necessary for many facets so independent India did compulsory vaccination made in 1957/8.

Conclusion: Western medicine is considered as the benchmark of a higher civilization. Hence British administration directly or indirectly introduced sanitation in India by force or sometimes voluntarily. The role of Health and Sanitation was the most important in the 19th and 20th centuries in India. At the beginning of the twentieth century, despite the practice of Western medicine was in progress, a large number of people had immense faith in indigenous medicines and indigenous medical practices because the native practitioners were trained and experienced in certain ways that entirely cured the diseases was the belief of the indigenous people. The Muslim communities like ‘*Bhoras, Khojas, and Konkanis*’ did not like and support inoculation even they have never been to the hospital for treatment in the early. But, in the 20th century, most of the communities took to inoculations and vaccination due to the enforcement of health policies and sanitary laws, which included the improvement of the surrounding inhabitants, masses, and dissemination of useful information on hygiene. Here from all the studies, I could argue that Vaccine was the weapon for smallpox. Some extend the policy of vaccine was good enough for the indigenous people against smallpox. But the people of Orissa reluctant to use vaccines under the colonial administration because of the strong belief of the indigenous curative system. The fees of the vaccine also another cause to resistant of vaccines by indigenous people. Orissa people do not like to go to the depots because of long-distance from home. This system appears to be the best to commence for the preventive measure for the smallpox variola and eventually, when people got awareness about health, they did appreciate the value of vaccination and clamour for a free vaccination. The success of the above scheme undoubtedly depended on the amount of control and supervision exercised by the inspecting staff over the work of the vaccinators.

³⁰ David Arnold, *Imperial Medicine and Indigenous Societies*, Manchester and New York, Manchester University Press, 1989.