

The History Of Modern Vaccination In Cooch Behar State In The Nineteenth Century

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Abstract: This paper examines the development of modern vaccination programme of Cooch Behar state, a district of West Bengal of India during the nineteenth century. The study has critically analysed the modern vaccination system, which was the only preventive method against various diseases like small pox, cholera but due to neglect, superstition and religious obstacles the people of Cooch Behar state were not interested about modern vaccination. It also examines the sex wise and castes wise vaccinators of the state during the study period. The study will help us to growing conciseness about modern vaccination among the peoples of Cooch Behar district.

Vaccination is the administration of vaccine to help the immune system develop protection from a disease. It is the most effective method of preventive infectious diseases like cholera, plague, and small pox. Edward Jenner had discovered vaccination against small pox in 1784 but in the year 1802 the parliamentary committee in England approved it. In 1840, the practice of traditional inoculation was prohibited and was replaced by vaccination that was made compulsory and obligatory in England in 1853A.¹ The state of Cooch Behar was great believer of traditional inoculation practice. Modern vaccination was started in the Raj Family of Cooch Behar in 1868-69 A.D. In this study an attempt has been made to search the vaccination history of Cooch Behar state.

Cooch Behar is now a district of West Bengal of India. It was a native state and had a long past history. From 1896 the name Cooch Behar was denoted to the kingdom. The Koch kings dominated it for a long time known as 'Koch dynasty'. Afterwards from 1st January, 1950, Cooch Behar was merged into the province of West Bengal according to the Merger Act of 28th August 1949 and became a significant district of West Bengal.² The state of Cooch Behar lies between 25° 58' and 26° 33' north latitude, and between 88° 48' and 89° 55' east longitude. The state was completely sovereign country before the year 1773. After that by a treaty between Maharaja Dharendra Narayan and English East India Company was finalized on April 5, 1773 state somehow lost his absolute sovereignty. The state became a native state under company and thereafter under British Government.

The inoculation against small pox was introduced in China in around 1000 AD and in India, Turkey and probably Africa as well.³ The first dose of small pox vaccine lymph in India arrived in May 1802. Anna Duthall, a three-year-old child from Bombay (now Mumbai) became the first person in India to receive small pox vaccine on 14th June, 1802⁴. In 1827,

four European superintendents of vaccination with one Indian vaccinator were appointed to the Bombay presidency. Great efforts were made for vaccination under the charge of the superintendents of vaccination. In 1870, the vaccination work was transferred to the supervision of the Sanitary Commissioners and their staff. The district public vaccination staff was supervised by the Civil Surgeon except in Bombay where it was under the control of the Deputy Sanitary Commissioners. In 1880, an act was passed for the compulsory vaccination of children in municipalities and cantonments. Small pox was the main target during that period, although vaccinations were also carried out for plague and other diseases. Variolation (an Eastern inoculation technique) was also used initially to control small pox. In 1864 and 1865, 556 people were vaccinated in Bengal.⁵

Inoculation was the only preventive against small-pox up to 1865-66. Although a beginning was made in vaccination by vaccinating the young Maharaja and some members of the Raj family in that year, only 81 operations could be made till 1868-69. In the year 1869-70, and the following year, Colonel Haughton obtained some government vaccinators from the Darjeeling circle but the people were very much averse to vaccination and during the latter year some misunderstanding occurred between the Morangias and the vaccinators, and the latter were recalled on that account to their own circle. Babu Bireswar Palit was then the medical in-charge of the state, who at the request of the Commissioner taught some of the indigenous inoculators how to vaccinate and they worked under his supervision.⁶ As these men were known among the people the plan worked admirably, though great difficulty was experienced on many occasions and some vaccinators were actually assaulted by the people.

In the year 1879-80, it was decided that a through vaccination of the whole state should be done and the inoculation which was this time greatly decreased should be prohibited. To carry out this programme seven natives of Cooch Behar from which two of them Rajgans were sent to Dr. Lidderdale to be taught the Government system of vaccination. Inoculation was prohibited in the state shortly after this.

In the beginning the vaccinations were done by salaried state vaccinators. A Deputy Superintendent of vaccination and vaccinating staff was appointed in 1869-70. As it was afterwards found that ex-inoculators who had been taught and had practised vaccination were more popular with the people. It was resolved towards the end of the British Administration to dispense with the vaccinating staff and only provide for the inspection of the work of the independent practitioners.

In the year 1883-84, after the installation the paid staff was abolished. The post of an Inspector was created and two vaccinators were retained. During the working season additional inspectors and vaccinators were licensed. The vaccinators were supplied with blank forms for report, lancets and capillary tubes by the state⁷. But the lancets were returned after the season was over. These private vaccinators were permitted to charge a fee of 2 annas for every successful case from the parties operated upon and received a bonus from the state which was fixed at Rs.3 per hundred cases in 1883-84, from which 8 annas was deducted and

paid to the inspector. This was gradually brought down and amounted to Rs. 2 per hundred successful cases in 1894-95. But permanent staff was abolished from March 1900.

In the year 1880-81 civil Surgeon Dr. Briscoe remarks with regard to the ex-inoculators that “you can only be allowed to carry on vaccine operations this year by agreeing to the following: -

1. Not to use crusts.
2. Arm to arm operations preferred, but fresh lymph in tubes may be used.
3. All operations are to be done with lancets. Needles are not on any account to be used.
4. All cases of vaccination are to be recorded in the new form, a supply of which will be given to each vaccinator.
5. You will have to go to Mathabhanga with a letter to the Deputy Superintendent of vaccination directing him to teach you how to use the lancet, storing lymph in capillary tubes, and recording cases vaccinated.
6. When properly qualified a license will be granted.⁸

Total Vaccinators in Cooch Behar state:

The statement below shows the total number of persons vaccinated in the following years and the percentage of the vaccinators with respect of total population in Cooch Behar state according to census report.

Table-1

Total vaccinators in Cooch Behar state (In respect of Total population)				
Year	Total number of persons vaccinated	% of vaccinators according to total population in Cooch Behar state	Census	Total population of Cooch Behar state
1873-74	4449	0.83	1872	532565
1874-75	7065	1.32	1872	532565
1875-76	7825	1.46	1872	532565
1879-80	22743	4.27	1872	532565
1880-81	17447	2.89	1881	602624
1881-82	19458	3.22	1881	602624
1882-83	20704	3.43	1881	602624
1883-84	23242	3.85	1881	602624
1884-85	26905	4.46	1881	602624
1885-86	28127	4.66	1881	602624
1886-87	34967	5.80	1881	602624
1887-88	37431	6.21	1881	602624
1888-89	26995	4.47	1881	602624
1889-90	13040	2.16	1881	602624
1890-91	13755	2.28	1891	578868
1891-92	13209	2.19	1891	578868
1893-94	17306	2.87	1891	578868
1894-95	17928	2.97	1891	578868
1895-96	20709	3.43	1891	578868

1897-98	15021	2.49	1891	578868
1898-99	15823	2.62	1891	578868
1899-1900	16895	2.80	1891	578868

Source:1. Annual Administrative Report of the Cooch Behar State 1878-79 to 1899- 1900

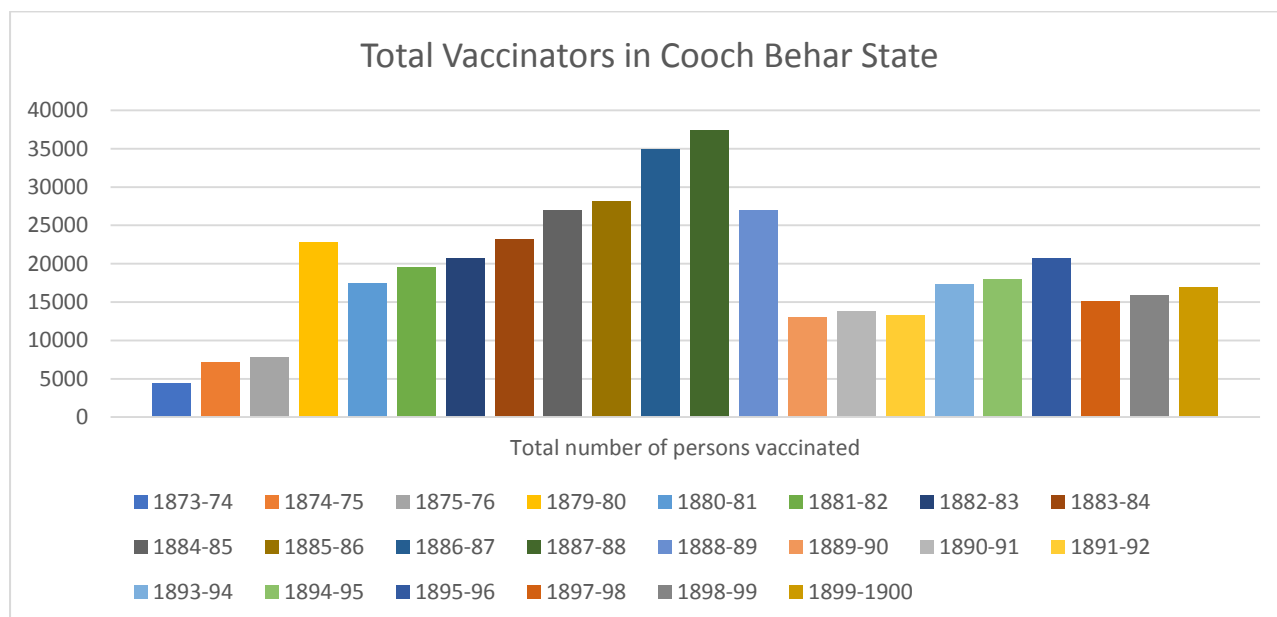
2. West Bengal District Gazetteers, Koch Bihar by Durgadas Majumder, Government of West Bengal, 1977, p.184

3. Mitra, Ashok, Census of India-1951, West Bengal, District Census Handbook, Coochbehar, P.I

From the above table we should assumed the people of Cooch Behar gradually accepted the modern vaccination. In the year 1887-88, the highest vaccination was performed in Cooch Behar with the number of 37431. But after that the number was decreased. In the year 1890-91 Dr. Hendley remarks that “I find that vaccination is becoming far more popular with the people now. I was several times told by the villagers that in such and such a year there was an outbreak of small-pox in their village, when so many people died, but that since vaccination was practised no more small-pox had occurred.”⁹

Table-1.1

Variation of Total Vaccinators in Cooch Behar



Source:1. Annual Administrative Report of the Cooch Behar State 1878-79 to 1899- 1900

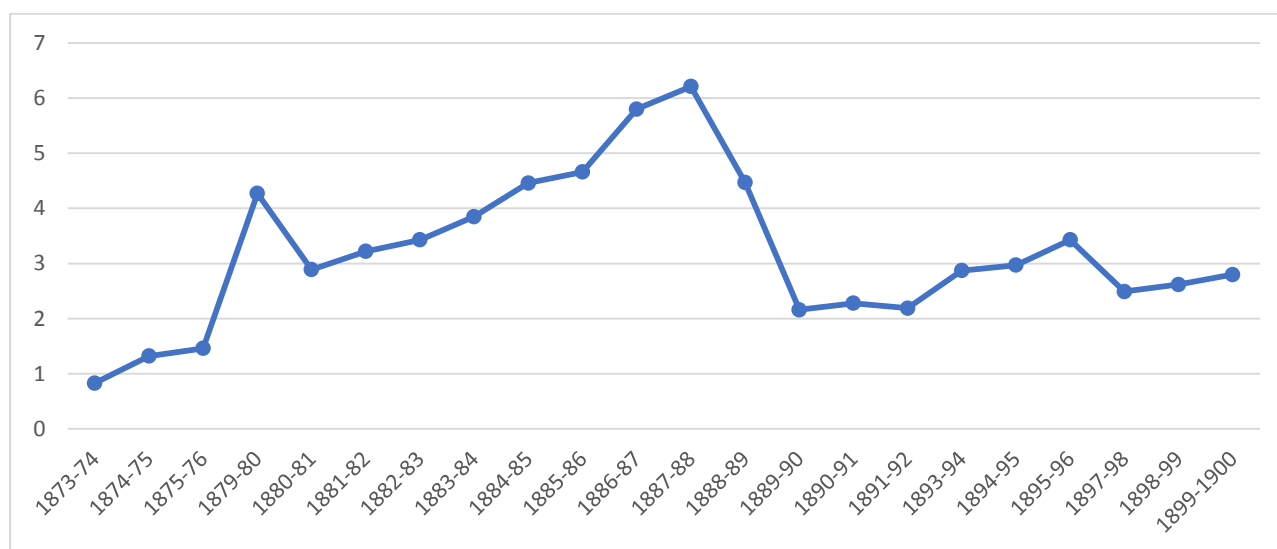
2. West Bengal District Gazetteers, Koch Bihar by Durgadas Majumder, Government of West Bengal, 1977, p.184

3. Mitra, Ashok, Census of India-1951, West Bengal, District Census Handbook, Coochbehar, P.I

The table shows the variation of the total vaccinators, increase and decrease of the total vaccinators in yearly year. In the year 1873-74 the total vaccinators were less than 5000 after that the number was increased. In the year 1887-88 was the highest vaccinators in Cooch Behar state was 37431. But gradually the number was decreased and at the end of 19th century it was reached 16895.

Table-1.2

Percentage of vaccinators with respect of Total Population in Cooch Behar



Source:1. Annual Administrative Report of the Cooch Behar State 1878-79 to 1899- 1900

2. West Bengal District Gazetteers, Koch Bihar by Durgadas Majumder, Government of West Bengal, 1977, p.184

3. Mitra, Ashok, Census of India-1951, West Bengal, District Census Handbook, Coochbehar, P.I

The above table shows the percentage of total vaccinators in Cooch Behar state with respect of total population was between 0.83 to 6.21 which was very low. In the beginning the rate was very slow but the percentage was gradually increased. But at the end of the nineteenth century the percentage of total vaccinators were decreased with slow rate.

Male and Female Vaccinators in Cooch Behar:

The following table shows sex wise vaccinators and the percentage of male and female vaccinators in the Cooch Behar state.

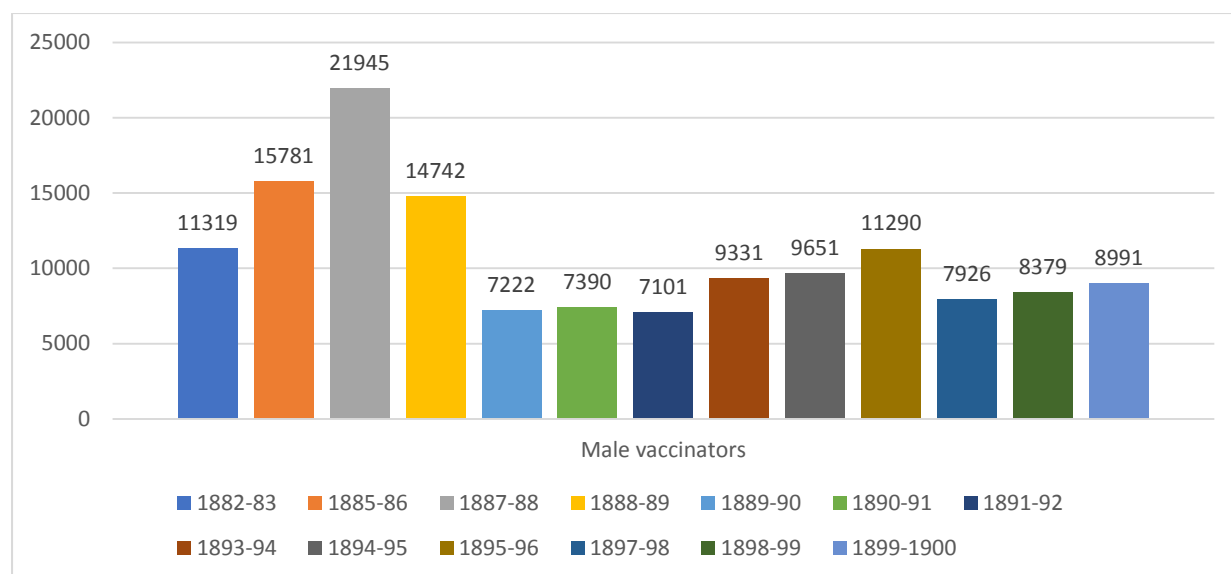
Table-2

Male & Female Vaccinators in Cooch Behar state					
Year	Total number of persons vaccinated	Male vaccinators	% of male vaccinators	Female vaccinators	% of Female vaccinators
1882-83	20704	11319	54.67	9385	45.33
1885-86	28127	15781	56.00	12346	44.00
1887-88	37431	21945	58.63	15486	41.37
1888-89	26995	14742	54.61	12253	45.39
1889-90	13040	7222	55.38	5818	44.62
1890-91	13755	7390	53.73	6365	46.27
1891-92	13209	7101	53.76	6108	46.24
1893-94	17306	9331	53.92	7975	46.08
1894-95	17928	9651	53.83	8277	46.17
1895-96	20709	11290	54.52	9419	45.48
1897-98	15021	7926	52.77	7095	47.23
1898-99	15823	8379	52.95	7444	47.05
1899-1900	16895	8991	53.22	7904	46.78

Source:1. Annual Administrative Report of the Cooch Behar State 1878-79 to 1899- 1900

We have a clear idea about the sex wise vaccination from the above table-2. The rate of female vaccinators was comparatively less than the male vaccinators. The table shows that the growth of vaccination rate both male and female was not too high. The percentage of male vaccinator was highest in the year 1887-88 and lowest in the year 1897-98. But in the year 1897-98 the percentage of female vaccinators was highest and lowest was in the year 1887-88.

Table-2.1**Male vaccinators in Cooch Behar State**

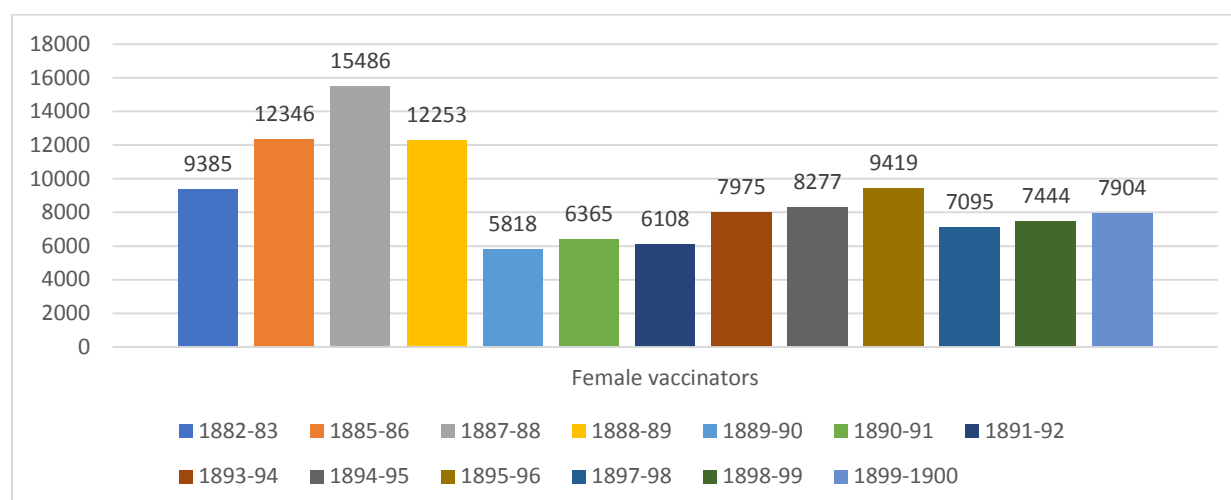


Source:1. Annual Administrative Report of the Cooch Behar State 1882-83 to 1899- 1900

2. Mitra, Ashok, Census of India-1951, West Bengal, District Census Handbook, Coochbehar, P.I

Table-2.2

Female Vaccinators in Cooch Behar State

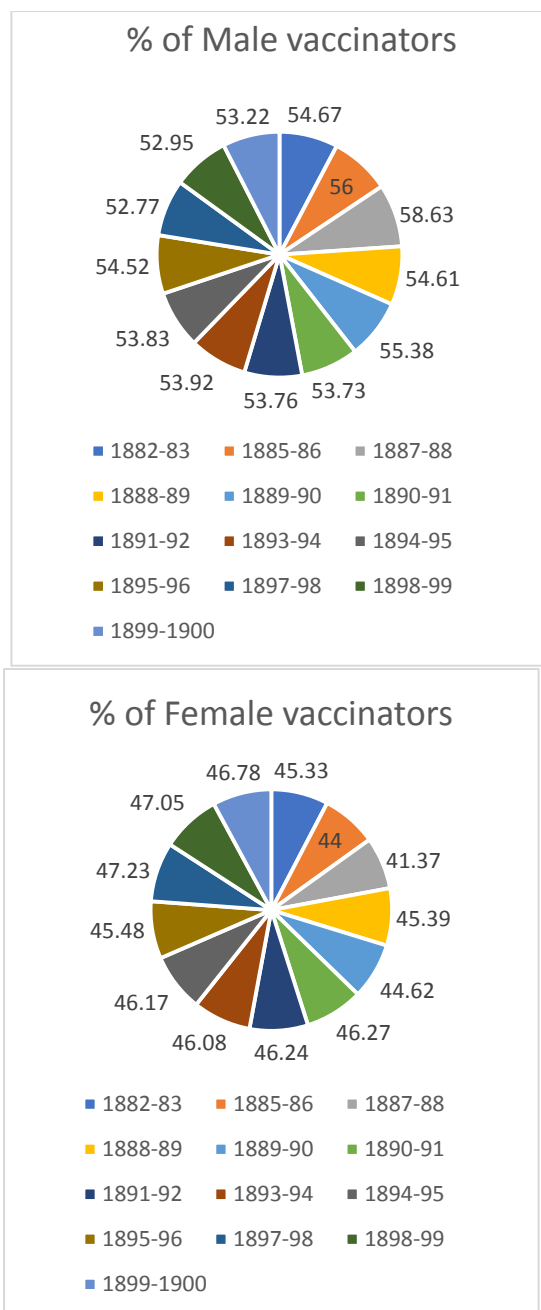


Source:1. Annual Administrative Report of the Cooch Behar State from 1882-83 to 1899- 1900

The table 2.1 & 2.2 shows the total numbers of male and female vaccinators in Cooch Behar state during the nineteenth century. We should assume from the above table that males were much aware than that of the females about vaccination in the state of Cooch Behar.

Table-2.3

Percentage of Male & Female Vaccinators in Cooch Behar State



Source:1. Annual Administrative Report of the Cooch Behar State from 1882-83 to 1899- 1900

The table- 2.3 shows the percentage of male & female vaccinators with respect of total vaccinators. In the state of Cooch Behar both male and female accepted the teste of modern vaccination. In the year 1887-88, the highest percentage of male vaccinators were 58.63% and in the year 1897-98 the highest percentage of female vaccinators were 47.23%.

Hindu, Muslim and Other caste vaccinators in Cooch Behar:

The following table shows the total number of Hindu, Muslim and Others Caste vaccinators and the percentage of vaccinators in respect of total vaccinators in the state of Cooch Behar during the 19th century.

Table-3

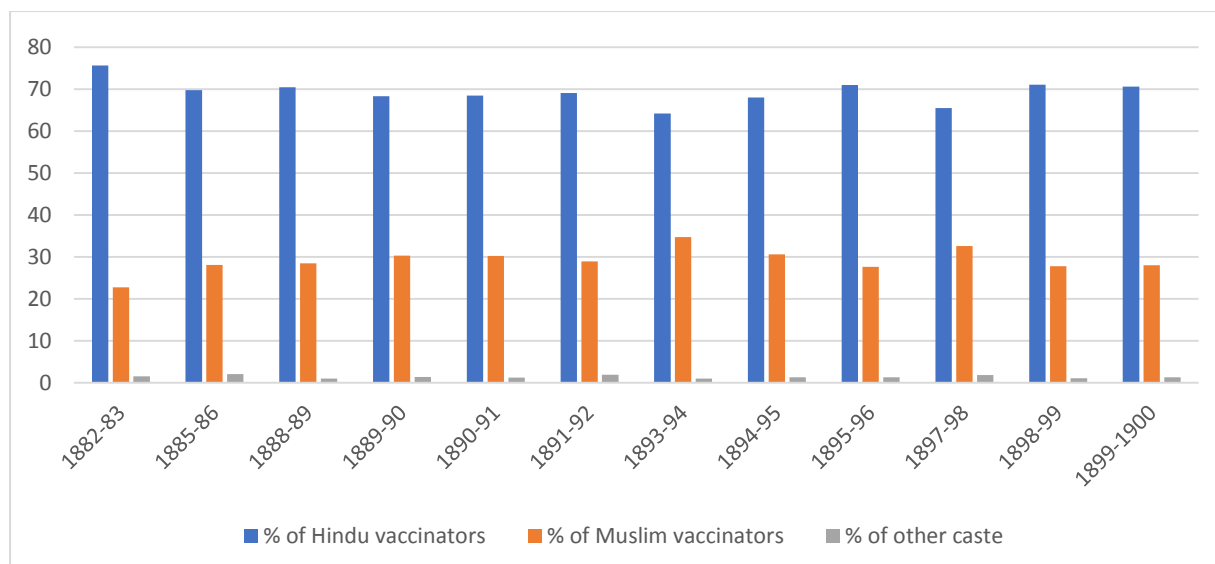
Hindu, Muslim and Other Caste Vaccinators in Cooch Behar state							
Year	Total Vaccinators	Hindu vaccinators	% of Hindu vaccinators	Muslim Vaccinators	% of Muslim vaccinators	Other caste vaccinators	% of other caste
1882-83	20704	15670	75.69	4709	22.74	325	1.57
1885-86	28127	19640	69.83	7900	28.09	584	2.08
1888-89	26995	19025	70.48	7698	28.52	272	1.00
1889-90	13040	8909	68.32	3953	30.31	178	1.37
1890-91	13755	9418	68.47	4164	30.27	173	1.26
1891-92	13209	9130	69.12	3823	28.94	256	1.94
1893-94	17306	11113	64.21	6015	34.76	178	1.03
1894-95	17928	12202	68.06	5493	30.64	233	1.30
1895-96	20709	14709	71.03	5723	27.64	277	1.33
1897-98	15021	9848	65.56	4896	32.59	277	1.85
1898-99	15823	11246	71.07	4401	27.82	176	1.11
1899-1900	16895	11929	70.61	4740	28.06	226	1.33

Source:1. Annual Administrative Report of the Cooch Behar State from 1882-83 to 1899- 1900.

It is clear that the percentage of Hindu vaccinators was very high and they were much interested about modern vaccination. In the year 1882-83 the highest percentage of Hindu vaccinators was 75.69%. The Muslims are also interested about modern vaccination in Cooch Behar state during the 19th century. In the year 1897-98 the highest percentage of Muslim vaccinators was 65.56%. Other caste people were also got the modern vaccination.

Table-3.1

Percentage of Hindu, Muslim and Other Caste Vaccinators in Cooch Behar



Source:1. Annual Administrative Report of the Cooch Behar State 1882-83 to 1899- 1900

2. Mitra, Ashok, Census of India-1951, West Bengal, District Census Handbook, Coochbehar, P.I

The above table shows the percentage of Hindu, Muslim and Other caste vaccinators in the state of Cooch Behar during the nineteenth century. The percentage of Hindu vaccinators was highest and other caste people were also aware about vaccination. The Muslims of the Cooch Behar state were also got the modern vaccination with good number of percentages.

Conclusion: -

The study will conclude that though the modern vaccination was started in Cooch Behar state in the year 1868-69 but in the beginning the people were not interested about modern vaccination because they were much interested about indigenous vaccination. But yearly year the royal and the common people were much aware about modern vaccination. They were gradually accepted the modern vaccination. So, the number of vaccinators were increased yearly year. In the year 1773 -74 the total vaccinators were 4449 but in the year 1879-80 the number of vaccinators were increased at the highest rate and in this year the total vaccinators were 22743. The above study we also seen that the vaccination rate was very low in respect of total population. Only 0.83% to 6.21% of the total population of the Cooch Behar state were got the modern vaccination in the nineteenth century. We should assume from the above study that the limited population of Cooch Behar state were interested about modern vaccination because more than 93% of the total population were great believer of indigenous vaccination due to superstition, false tradition and religious obstacles etc. In the state of Cooch Behar both male and female of all castes were accepted the modern vaccination in the nineteenth century among them the Hindus were more aware about modern vaccination.

¹ Gujral, M.L. (1975): “Health Organization and medical Relief”; in V. B. Singh, ed., Economic History of India, 1857-1956; New Delhi: Allied Publishers Pvt. Ltd.; p.705.

² Mitra, Ashok, Census of India-1951, West Bengal, District Census Handbook, Coochbehar, P.I

³ Fenner F, Henderson DA, Amrita I, Jeer Z, Ladnyi ID. Geneva: World Health Organization; 1988. Smallpox and its eradication; pp. 369–71.

⁴ Bhattacharya S, Harrison M, Worboys, M. Fractured states: Smallpox, public health and vaccination policy in British India, 1800-1947, Hyderabad: Orient Longman; 2006.

⁵ Government of India. New ed., published under the authority of His Majesty's secretary of state for India in council. Vol. IV Administrative. Oxford: Clarendon Press; 1909. The Imperial Gazetteer of India; pp. 457–80.

⁶ Chaudhury, Narayan, Harendra, The Cooch Behar state and its Land Revenue settlements, Cooch Behar state press, 1903, P.344

⁷ Majumder, Durgadas, West Bengal District Gazetteers, Koch Bihar, Government of West Bengal, 1977, P.184

⁸ The Annual Administrative Report of the Cooch Behar state 1880-81, p.48.

⁹ The Annual Administrative Report of the Cooch Behar state 1890-91, p.59.