Western Medicine in Colonial Kerala: Patterns of Patronage and Institutionalization, C. 1800 -1947

Thesis submitted to Jawaharlal Nehru University in partial fulfillment of the requirements for the award of the Degree of

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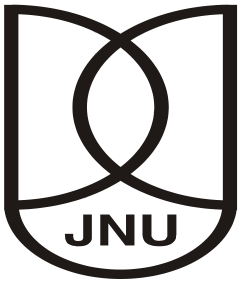
SATHEESH P



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The thesis entitled '**Western medicine in Colonial Kerala: Patterns of Patronage and Institutionalization,C.1800-1947**',submitted for the Degree of the Doctor of Philosophy has not been previously submitted for any other degree of this or any other University and is my original work.

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Place: JNU
Date: 30-12-12 SATHEESH P

To my Family, Kutoos and Vava

Abbreviations

IMS - The Indian Medical Service

TAR - Travancore Administration Reports.

LMS - London Missionary Society

CMS - Church Missionary Society

EEIC - English East India Company

SNDP - Sree Narayana Dharma Paripalana Yogam

ARBM -Annual Report of Basel Mission

TNSA - Tamilnadu State Archives

NAI - National Archives of India

KSA - Kerala State Archives

ICMR - Indian Council of Medical Research

ICHR - Indian Council of Historical Research

NMML - Nehru Memorial Museum and Library, Teen Mutry

GLOSSARY

Jatisampradayam	: The Caste System
Nayanmar	: The Nair Community
Ezhuthukalari	: Ancient Village School in Kerala
Kudippallikkudam	: Indigenous School under one teacher system.
Kalari	: 'Threshing floor', Training Center
Otuupalli	: Single teacher schools in neighborhood mosques
Kavirajs/Kabiraj	: People practicing Ayurveda in Eastern India.
Vaidyan/Vaithyan	: Physician
Hakims	: Unani physicians
Kara	: A small unit of a village
Mandapathum Vatukkal	: A system of dividing the land in to many divisions for revenue collection in Travancore, during the reign of Marthanda Varma
Anna/Annas	: Money. An *anna is approximately 4 paisa* (100 paisa in a Rupee, 25 paisa is often still called as 4 *anna, and* eight *annas* as 50 paisa.
Pakuthies	: Village.
Vasoorimala	: Smallpox
Mariamma	: The smallpox goddesses in vogue in southern India.
Bhagavati	: Goddess vogue in Kerala
Gramadevata	: The Village Goddess
Muthumariyamma	: One of the names of the smallpox goddess.
Karumariyamma	: One of the names of the smallpox goddess.
Division Peishkar	: The Chief Revenue Officer
Pattam	: Land Revenue

Introduction

There is no cure for curiosity[1]
-Tim Davis

The advent of the British in India marked the entry of 'modern science and technology'[2] in our country. It is known that India was under the control of various colonizers for many centuries; and that ultimately shaped and reshaped her political, social and economic future along with a paradigmatic change in its cultural scenario too. This period is perhaps known to be the heydays of colonialism in India. Colonialism played a critical role in the development of its basic forms of knowledge even as it shaped its cultural technologies of domination.[3]

The colonial process was not just mere political and economic subjugation. As Dirks opines, colonial conquest was not merely the outcome of the power of superior arms, military organization, political power, or economic wealth as important as these were. Moreover, colonialism was made possible and then sustained and strengthened as much by cultural technologies as it was by the more obvious and more brutal modes of conquest.[4] The cultural effects of colonialism have too often been ignored or displaced in the available logic of modernization and world capitalism and more over it has not been sufficiently recognized that colonialism itself was a cultural project of control. Therefore, cultural forms in societies newly classified as traditional were reconstructed and transformed by and through this colonial knowledge, which enabled colonization, created new categories and oppositions between colonizers and the colonized.[5]

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[1] Quoted in Selin, Helaine (ed.), *Encyclopaedia of the History of Science, Technology, and Medicine in Non- Western Cultures*, Springer-Verlag, New York, 2008.

[2] The term 'Modern Science and Technology' stands here for Western science and technology. However, it doesn't mean that there was no science and technology in India before the advent of the British.

[3] See Preface, Nicholas B-Dirks, in Bernard S Cohn, *Colonialism and its forms of Knowledge: The British in India,* Princeton University Press, New Jerssy, 1908, p.ix.

[4] Ibid., p.ix

[5] Ibid., p.ix

Colonialism in India was a long term process, through which it was possible for the alien powers to conquer and subordinate the indigenous population through various ways. Political subordination was one of the important ways of colonial penetration; consequently and continuously it culminated in the process of economic domination and exploitation. However, the nature of control kept on changing as it always longed for new ways and methods along with innovative strategies of conquest. As a result, colonial governmental practices underwent radical changes consequent to the shift in the nature of political control and subsequent furtherance and sustenance of the establishment of power. Then, the governance of the physical bodies of the people became an important medium of control.[6]

Colonizers held the view that the colonized bodies were weak and were open to the assault of contagious diseases. The responsibility of the colonial authority was seen as reclaiming indigenous human bodies from its various ailments.[7] The creation of hegemony and the exercise of power by the colonial authority henceforth were articulated not merely by physical force, but also by the working network of institutions associated with science and medicine. Thus science as a tool of 'cultural engineering' was essential, and integral to the functioning of colonialism in India; medicine remained the most cardinal of its political projects. Medicine, therefore, became the most important of the 'visual markers and manifestations' of the colonial hegemony of science.[8] British medical intervention to tackle the outbreaks of epidemic diseases is, therefore, considered as one of the significant aspects of

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[6] Burton Cleetus, *Indigenous Traditions and Practices in Medicine and the Impact of Colonialism in Kerala,1900-1950*,Unpublished PhD dissertation submitted to Jawaharlal Nehru University, New Delhi,2007,p.11.

[7] British India had experienced the scourges of epidemic diseases, such as malaria, small-pox, cholera and plague etc. In the imperial literature and also in the history by some western scholars, these lethal diseases were attributed exclusively to the tropics. Even they were consigned as Indian epidemics, thriving on her enervating climate, untidiness and obscurantism. The tropical climate was almost universally considered to be the prime cause of European ill health. India was conceived as a land of dirt, disease and sudden death. For more readings, see, Chittabrata Palit & Achintya Dutta (eds.), *History of Medicine in India: The Medical Encounter*, Kalpaz Publications, New Delhi, pp.12-15.

[8] Burton Cleetus, op.cit.,p.12

Western medicine in India.[9] This intervention was started with the advent of preventive medicine in India.

Though the sphere of intervention was diverse, the basic epistemic paradigm that guided and formulated colonial objectives were based on the instrumentalist logic rooted in the visual gaze of the material object. The beginning of colonialism set forth the elements of fundamental changes in the society which formed the platform conducive for the advent of an alien medical system.

During the course of the nineteenth century the administrative and institutional infrastructure was set up by the state.[10] Although a limited enterprise, the hospitals, dispensaries and colleges established by the state formed the nucleus from which colonial medicine sought to establish its legitimacy. In this process, the role of the colonial as well as princely states went even beyond administrative functions.

Therefore, as Panikkar pointed out, it not only promoted Western medicine, but also sought to assert and establish its superiority over all other systems. Western medicine thus became the officially preferred system; it was accorded the status of official medicine and the attitude of the state towards other systems became discriminatory, even hostile.[11] This was apparently visible in the context of Malabar, but at the same time in Travancore, after a few decades of the introduction of Western medicine, the princely rulers also had patronized indigenous medicine. The process of modernization and social transformation which took place in the 19th and early 20th century had played a significant role in bringing changes in the health care system in India in general and in Kerala in particular.

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9 They argue that these diseases were a cause of concern for the colonial rulers is an undeniable fact. But the question has been raised whether this concern was for the Indian people as a whole or for the army, European civilians, plantations, trade and industry. It is evident from the historical fact that the government started taking measures against these diseases when they posed a serious threat to plantations, trade and industry. Chittabrata Palit & Achintya Dutta(eds.),op.cit.,p.17

10 K N Panikkar, 'Indigenous Medicine and Cultural Hegemony', in K N Panikkar (ed.) , *Culture, Ideology and Hegemony*, Tulika Publications, New Delhi,p.148.

11 Ibid., p.148.

The present study is an attempt to look into the advent of Western medical practices[12] in Colonial Kerala[13]. The study is an attempt to enquire into the patterns of state patronage, of both the British and the Princely rulers on the one hand, and the missionary patronage on the other, along with the consequent and complex processes of institutionalization of Western medicine predominantly during the British paramountcy in Kerala. Thus the study unravels the social history of Western medicine beginning from 1800 till 1947.

One who looks in to the historiography of Modern Kerala would find big lacunae of social histories, especially of science, technology and medicine. It is found that medicine remains more or less an unexplored area albeit the availability of abundant archival materials particularly pertaining to various aspects of Western medical practices during the British reign in the State. And therefore, the study is also an effort to reconcile the extensive data from those immensely vivid repositories of primary documents available in the archives and other locations.

This study encompasses the time span from 1800 to 1947. The year 1800 marks a rupture in the social history of medical practices in colonial Kerala as the British paramountcy had decided to introduce smallpox vaccination in the state. It was firstly introduced in Malabar way back in 1800, and because of the native apathy and staunch resistance, it got a setback in its initial time and hence, in Travancore vaccination was successfully introduced in 1811.[14] This is considered to be the

[12] Following Roger Jeffery, here I use the term 'Western medicine' for Western Bio-Medicine. Referring to western medicine is problematic in India, since both *Unani* ("Greek") and Homoeopathic medicine also came from the West. However, it reflects usage in India, especially in the period before 1947 when this system of medicine was identified with the British. Roger Jeffery, *The Politics of Health in India*, University of California Press, London, 1988, p.12; the system of medicine known today variously as 'international,' scientific,' or 'Western', entered South Asia as early as the seventeenth century. For two centuries this system, known in India as allopathic medicine, coexisted with the medical traditions indigenous to South Asia**.** John Chandler Hume, Jr., **'**Colonialism and Sanitary Medicine: The Development of Preventive Health Policy in the Punjab, 1860 to 1900', *Modern Asian Studies*, Vol. 20, No. 4,1986, p. 703

[13] 'Colonial Kerala' refers to the erstwhile Travancore and Cochin under the princely rule along with Malabar under the direct rule of the Madras Presidency under the British. Kerala State was formed on 1st November 1956 by unifying already amalgamated Travancore and Cochin along with Malabar.

[14] In August 1801 very handsome rewards were offered to natives who successfully practiced inoculation. (This was probably the "vaccine inoculation", then recently discovered) for smallpox, and in 1803 the Sub-collectors were directed to exert themselves personally to the utmost in persuading the principal inhabitants of the country, who have not had the small pox to submit to vaccination. William Logan *Malabar Manual*, Vol. I, p. 215; the European system of medical aid

beginning of preventive medicine in the state with princely patronage in Travancore and Cochin. On the contrary, Malabar district under the direct reign of British did not enjoy any forms of patronage other than the British paramountcy.

Moreover, until the early nineteenth century, British attitudes were marked by tolerance and some British practitioners were even appreciative of Indian 'systems' of medicine, such as Ayurveda. Western medicine — at least as it was practiced in India — had not by 1800 entirely freed itself from the humoral theory of diseases and thus in both its diagnosis and therapeutics it retained an affinity with the Ayurvedic and Unani systems.[15] This permitted an appreciation of Indian drugs on terms not dissimilar to those of Western medicine. Indeed at this time Western medicine possessed little evident advantage in the treatment of many of the most common diseases of India, including malaria, cholera and dysentery.

Therefore, the study begins from 1800 and thematically covers different themes like 'colonial modernity and the socio-cultural background of Kerala in the eighteenth and nineteenth century', the consequent social transformation that set forth the advent of 'Western medicine as preventive medicine in Travancore'. The smallpox vaccination in Travancore, 'cowpox vaccination and indigenous response in Malabar', 'Medical Institutions' and their tremendous growth mainly in the princely state Travancore, and Malabar under Madras Presidency, 'Clinical Christianity' as patrons of Western medicine in Travancore etc. are also tried to explore.

The year 1947 is remarkable in Modern Indian History in many sense. In this year, the already matured Indian National Movement, which galvanized millions of people of all classes and ideologies in to political action and brought to its knees a mighty colonial British Empire.[16]

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was firstly introduced in princely Travancore during the reign of Her Highness Gowri Lakshmi Bhai in 986 M.E.(1811 A D).This was at first confined to the members of the ruling family and officers of government. For more details see, *Travancore Administration Reports* (here onwards, TAR) for various years, Government of Travancore, Trivandrum.

[15] David Arnold, 'Medical Priorities and Practices in nineteenth century British India', *South Asia Research*,Vol.5,No.2,November 1985,p.174

[16] For more details, see, Bipan Chandra, Mridula Mukehrji, Aditya Mukherji, Sucheta Mahajan,and K N Panikkar, *India's Struggle for Independence*, Penguin, New Delhi,1989.

Thus, the thesis encompasses the social history of the advent of Western medicine in colonial Kerala[17], particularly in Travancore, where it was much patronized by the princely rulers and 'the clinical philanthropists' like the missionaries and other private agencies. Hence, this study looks in to the patterns of the Princely and Missionary patronage in detail. The process of institutionalization of Western medicine would not have been possible in the state without such a patronage. Various agencies and devices that helped this process will be considered in detail. This include the smallpox vaccination in Travancore, its institutionalization as a major prophylaxis; medical institutions such as hospitals and dispensaries of various types, that popularized the Western medical care, special institutions such as lunatic and leper asylums to treat the insane and leper patients in Travancore and Malabar.

In the beginning, the study tries to analyze whether colonial modernity reshaped the social structure of Kerala in the form of an alternative modernity? The social as well as cultural movements would be analyzed in the beginning for a better understanding of the historical background of Kerala society.

Thus, the study is aiming at locating Western medicine as a component of the colonial expansion that was necessary for the British to sustain their hegemony, in their multifarious contexts focusing on the problematic beginning with smallpox prophylactic, with initially the native apathy, and later the complex and consequent process of institutionalization of Western medicine in the State.

Hence, this thesis attempts to analyze whether patronage of the princely rulers towards Western medicine in Travancore was primarily an instrument of British colonialism seeking to reinforce their authority or whether these princely states might have been using Western medicine for similar or for different goals. It further looks in to how far the concept of a 'Hindu Charity State' of Travancore was being kept up by the rulers of Travancore in the colonial period? Whether these rulers considered providing European medical care and English education as a part of their modernizing vision or did they compromise it for the British paramountcy?

[17] In this study, while referring to Colonial Kerala, the princely state Cochin has not been included. This omission is mainly because of the similarities possessed by both Travancore and Cochin in the patterns of the development of Western medicine. Many of the administrative reports jointly published by Travancore and Cochin reveal these similarities. For details, see, Travancore—Cochin Administration Reports for Various Years, Government of Travancore & Cochin, Trivandrum.

Methodology of the study is a conglomeration of different conceptual frameworks. They are particularly drawn from social history of medicine,[18] political history with a combination of textual and field studies. The first phase begins with an empirical survey of the primary sources, particularly archival documents for a narration of historical incidents, and hence concentrating on finding broad similarities and disjuncture of patterns. From this reading, organizing concepts and analytical categories are drawn, which are read against the background of secondary literature. In the second stage, a combination of field work and reading of the secondary sources have helped to complete the analysis based on topical themes mentioned.

The proposed study is mainly based on the archival repositories. Those records/documents particularly on health, sanitation, medical policies including vaccine inoculation as preventive medicine, epidemic disease response policies etc., have been given priority. These records are located in various Archives including National Archives of India (NAI), New Delhi, Kerala State Archives (KSA) ,Trivandrum, Regional Archives, Calicut and Ernakulum, Tamil Nadu State Archives (TNSA), Chennai- Egmore, Tamil Nadu.

The 'Annual Administration Reports on Civil Hospitals and Dispensaries' of Madras, beginning from 1850's are very informative regarding the administration of hospitals and dispensaries, vaccination prgrammes, information on patients, diseases etc. Published reports on vaccination titled 'Report on Vaccination in the Madras Presidency', for various years are immensely informative about vaccine inoculation, epidemic diseases and other related aspects.

Yet another category of records titled 'Selections from the Records of Madras Government: Annual report of the three lunatic asylums in the Madras presidency for various years' were also much helpful. 'The Civil Medical Code, Madras', compiled in the office of the Surgeon-General with the government of Madras provide immense information on medical establishments, administration, medical practitioners, and their responsibilities. Correspondence regarding the compilation of the Census, District Gazetteers particularly of Malabar and Travancore, provide illustrative

[18] For Social History of Medicine, I am mainly indebted to, and depended on the works done by Prof. David Arnold viz. *Imperial Medicine and Indigenous Societies*, Oxford university Press, Delhi, 1989; *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth Century India*, Oxford University Press, Delhi, 1993; The New Cambridge History of India III: *Science, Technology and Medicine in Colonial India*, Cambridge University Press, UK, 2000.

information on different aspects of health care and medical practice during the colonial period.

Documents available in the Secretariat library, Kerala State Legislative Assembly include 'Administration Reports on Travancore and Cochin' for various years. They are in fact immensely informative on the administration of hospitals, dispensaries, patient's records, in-patients and out-patients, expenditure, vaccination, statistics on vaccination under successive princely rulers of the State of Travancore and Cochin.

One of the rich repositories situates in the Directorate of Health Services, Trivandrum, Kerala, has been much helpful in exploring some rare and important documents and books on colonial Travancore. It includes vaccination reports on Travancore, census data for both Madras and Travancore, and some important secondary readings on epidemics, infectious diseases and public health.

National Medical Library at Indian Council of Medical Research (ICMR), New Delhi is a fertile ground for the social history of medicine. Various journals and magazines and other related records are easily accessible there. Major secondary works are collected from CHS Library JNU, Nehru Memorial Museum and Library, Teen Murty, ICHR Library, New Delhi, Centre for Development Studies, Trivandrum, Kerala University Library, Trivandrum.

Historiography of Colonial Medicine[19]

The advent and dissemination of Western bio-medicine in the Indian environment has been thoroughly studied by many historians as well as other scholars from various perspectives. For many scholars, it was an encounter rather than an engagement and for others it was the phenomenon of coexistence of different systems (pluralism), which has been celebrated as one of the fundamental features of a tropical climate like that of India.

[19] For the term 'colonial medicine', I am indebted to David Arnold, who observes "during the early years of colonial rule in India there emerged a system of colonial medicine which was more than a simple replication of Western medicine in Britain at that time. The great significance attached to environmental factors – climate, topography, vegetation-in the causation and transmission of disease, together with the supposed effects of heat and humidity on European constitutions, meant that the practitioners of Western medicine saw an imperative need to adapt and modify their practice to physical circumstances that were very different from those found in Europe. Once established, this environmental paradigm remained the dominant one in epidemiological thought in India almost throughout the nineteenth century." David Arnold, "Colonizing the Body",op.cit., pp.58-9

The spread of Western medicine has often been seen as an unqualified triumph, an emphatic justification for imperial rule.[20] A Eurocentric historiography has depicted disease as one of the great problems Europeans had to overcome in securing their mastery of the wider world. In the nineteenth century, so this tradition runs, Western medicine responded to a series of challenges, for example in the epidemiology of both tropical and temperate regions, and pathology, immunology, and pharmacology all took a great leap forward.[21]

In recent years, it has become apparent that the interaction of imperialism with disease, medical research, and the administration of health policies are considerably more complex. Medicine was itself a primary vehicle for the imperial ideas and their application, offering richly suggestive insights in to the general character of European expansion. Imperialism highlights the fact that medicine is an ideology as much as a practice. It represents a particular way of viewing the relationship between humans and their environment, and it illustrates well the necessity of studying the interdependence of metropolis and the periphery. The social history of disease and medicine thus gradually came up as one of the key areas of medical history, which has been treated as a window to see through the nature of development or under development of a given society at a specified time.[22]

Western medicine and Colonization of the Body

The rise and growth of Western medicine in the non-western countries has been associated with colonialism. Attempts have been made to link colonial medicine with the process of colonizing the material object, particularly the human body.[23]

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[20] John M Mackenzie, 'General Editors Forward' in David Arnold (ed.), *Imperial Medicine and Indigenous Societies*, p.vi.

[21] Ibid., p.vi.

[22] Biswamoy Pati and Mark Harrison, *Health, Medicine and Empire: perspectives on Colonial India*, Orient Longman, New Delhi,2001,p.1

[23] For instance, Michael Foucault has come out with several works on the history of the 'human body' under colonialism…*Madness and Civilization: a history of insanity in the age of Reason*, Vintage Books, 1988; *Discipline and Punish: the Birth of the Clinic; Power and Knowledge* etc belong to this category. In order to get more details on the history of body, see, Michael Foucault, *The birth of the Clinic: An Archaeology of Medical Perception*, Routledge, New York,1989;*Discipline and Punish*: *The Birth of the Prison*, Vintage Books, New York,1995.

David Arnold, in his work, investigates the purposes, nature and impact of Western medicine in the 19th and the early 20th centuries in India[24]. The central concern of these works is the way in which colonial doctors and imperial medicine shaped the interaction between rulers and the ruled. Imperialism has been indicted for manifold evils, but it has generally been held that the Whiteman's medicine was really rational and humanitarian.

He argues that at first largely confined to the needs of the Europeans abroad, Western medicine rose in the late nineteenth century to global assertiveness. With the aim of expanding empires, medical science gave imperial administrations, a sense of purpose, a confidence in their capacity to transform entire societies in the light of their own notions of progress, sanitation and science. Yet they were held back as much by political constraints and cultural resistance as by technical limitations. According to Arnold by the 1930s the first 'heroic age' of Western medical intervention was over.

Arnold further attempts, by making a departure from the main body of Foucault's work, to see resistance as an essential element in the evolution and articulation of a particular system of medical thought and action.[25] Colonialism used — or attempted to use — body as a site for the construction of its own authority, legitimacy, and control. In part, therefore, the history of colonial medicine, and of the epidemic diseases with which it was so closely entwined, serves to illustrate the more general nature of colonial power and knowledge and to illuminate its hegemonic as well as its coercive processes.[26] The discursive domain of Western medicine has been a central element in the dialectics of power and knowledge in colonial India. Western medicine in India was a colonial science and not simply an extension or transference of Western science to a colonial outpost.[27]

After one hundred and fifty years of British rule, Western medicine was still struggling to establish itself among the people of India. According to Arnold,

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[24] David Arnold, (ed.), *Imperial Medicine and Indigenous Societies*, Oxford University Press, New Delhi, 1998; also see, "Medical Priorities and Practices",op.cit.,pp.167-83; 'Rise of Western Medicine in India, *The Lancet*,Vol.348,1996,pp.1075-78;*Colonizing the Body: State Medicine and Epidemic Disease in the nineteenth century India*, OUP, Delhi,1993.

[25] David Arnold, "Colonizing the Body", op.cit., p.7.

[26] Ibid.,p.8

[27] Ibid., p.9.

medicine had been far less successful in this regard than the legal profession which, with a minimum of state sponsorship and regulation, had flourished like a hothouse plant in the steamy litigious atmosphere of colonial India. It happened so because it had remained too closely identified with the requirements of the colonial state and so was remote from the needs of the people. It had failed to make the transition from state medicine to public health. However, according to Arnold, the position of medicine today is "akin to that of state religions yesterday." It has "acquired an officially acquired monopoly of the right to define health and illness and to treat illness."[28]

Another explanation was that the mass of the population remained content with the innumerable and readily accessible practitioners of indigenous medicine — the *kavirajs*, the *vaidyas*, and the *hakims* — and either saw no reason to seek out the few western-trained practitioners who were available or could not afford their fees. Despite the influential package of the colonial state, despite its own scientific claims and monopolistic aspiration, Western medicine had singularly failed to displace its indigenous rivals.[29]

Gyan Prakash notes that to govern Indians as modern 'subjects' required colonial knowledge and self-regulation to function as self-knowledge and self-regulation, but this was impossible under colonialism.[30] The British were obliged to practice govermentality as an aspect of imperial domination. They introduced sanitary regulations, established Western medical therapeutics and institutions, and campaigned against the epidemics, but such practices of governance had to operate as acts of colonial rule.[31]

The pressure to enact coercive rule as the welfare of the population forced colonial govermentality to occupy two positions at once — Western and Indian. He further argues that the body rendered knowable by physiology, pathology, and surgery, and visible in diseases, epidemics and deaths, was required to also

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[28] Ibid.,p.9

[29] Ibid.,p3

[30] Gyan Prakash, *Another Reason: Science and the Imagination of Modern India*, Oxford University Press, Delhi, 1999, p.127.

[31] Ibid., p.127.

materialize itself as the body located in the knowable of Indian conditions and dispositions. Thus, by adding a further specification on Arnold's argument, Gyan Prakash opines that the 'colonization of the body' had to operate as the care of the 'native body.' So both Arnold and Prakash see the advent of western medicine as the process of 'subjugation' of the native bodies in India.

Arnold again stresses paradoxically, that a system of medicine which often proclaimed its intentions of sweeping away custom, caste, and superstition often ended up quietly negotiating for its own acceptance.[32] Just, as it did not want to be merely the white man's medicine, so it also aspired to be more than medicine for the half caste and untouchables. Western medicine craved status and respectability, and India, for all its political subordination, exacted a price for this cultural acceptance. The practitioners of colonial medicine might not have believed in caste, but they participated in the creation of caste hospitals. They certainly doubted the efficacy of indigenous medicine, but were obliged even in the 1800s to make some room for the *vaidyas* and the *hakims*.

The dual engagement of the British — with the environment and with culture — helped fashion not only the distinctive character and pre-occupation of India's colonial form of medicine, but also the manner of its Indian reception and assimilation. Although medical and sanitary intervention was initially driven by the scientific interest of the colonial state, over the course of the century, medicine began to serve other agendas and inform a wider cultural and political dialogue.

Arnold opines that in the wake of the Robert Koch's identification of the cholera bacillus and Ronald Rose's discovery of the mode of malaria transmission and the outbreak of bubonic plague in India, there was a shift away from the environmental paradigm that had dominated nineteenth century medical thought and the emergence of new scientific ideas, institutions and practices.[33]

Margaret Jones says that Western medicine, it is claimed, is hegemonic both in itself and as a function of Western imperialism. Towards the later end of the nineteenth century, with the scientific discovery of bacteria, Western medicine

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[32] David Arnold, "Imperial Medicine",op.cit.,p.182

[33] David Arnold, *Science, Technology and Medicine in Colonial India*, Cambridge University Press, London, 2000, p.57.

underwent a radical change with a "departure from medical pluralism" "to a growing conviction that Western scientific medicine was superior to any others.[34]

However, how far the British's attempt to popularize Western medicine was successful in India needs further enquiry. Roger Jeffrey points out that the administrative, economic and other constraints might have stood in the way of the introduction of Western medicine in India.[35]

The Medical Encounter: Indigenous Vs. Western Medicine.

The advent of the British in India with their science and medicine was an epoch-making event in modern Indian history. It introduced the fast developing modern medical system of the West. The result was the encounter between western and Indigenous medicine — a cultural encounter between India's traditional society and the West.

Deepak Kumar views that Western medical discourse in India, functioned in several ways: as an instrument of control which would swing between coercion and persuasion, as the exigencies demanded, and as a site for interaction and often resistance. This discourse, according to him, was mediated not only by consideration of political economy but also by several other factors. Polity, biology, ecology, the circumstances of material life and new knowledge interacted and produced this discourse. The emergence of tropical medicine at the turn of the last century may be seen in this light. It may be argued that tropical medicine itself was a cultural construct, the scientific step-child of colonial domination and control.[36]

He further says that Western medicine as an instrument of control served the state and "the indigenous systems felt so marginalized that they sought survival more in resistance than in collaboration". Nevertheless, the majority of Indians believed

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[34] Margaret Jones, *Health Policy in Britain's Model Colony,Ceylon1900-1948,* University of Oxford, London,2004

[35] Roger Jeffrey, *The Politics of Health in India,* University of California Press, Berkely, 1988, p.15.

[36] Deepak Kumar, "Medical Encounter, Concepts and Practices in India: A Historical Outline", *Archives Internationales D'histoire Des Sciences*, Vol.55, No.155, December 2005, p.362.

that the total acceptance of new knowledge did not mean total rejection of the old and favoured synthesis of Western and Indigenous medical systems."[37]

According to Deepak Kumar, till the 1860's, European physicians and Indian practitioners of both Indigenous and Western medicine were open to 'syncretism' in their medical practice. After 1860, the state affairs changed when the advocates of Western medicine began to seek "absolute supremacy". Thereafter Indigenous medicine declined, which once enjoyed esteemed position, even though it was the medicine of 90 percent or more of the population.[38]

Anil Kumar opines while discussing the British medical policy in India[39] that the preservation of European health in new and 'hostile' lands was colonial medicine's first responsibility. Gradually, the colonial doctors developed into a cultural force. They began by defining or redefining what they saw in the colonies in terms of their own training perceptions. Their work encompassed not only the understanding and possible conquest of new diseases, but also the extension of western cultural values to the non-western world.[40] He further argues that imperialism both as an impulse and an attitude, required the operation of a set of skills and rules. European medicine undoubtedly complimented these.

According to Kumar, Europe had known cholera, plague and small pox for centuries. What was distinctive about these diseases in a tropical climate was their intensity and ferocity.[41] Very organized efforts were needed to combat it. In the settler colonies where the Europeans had found prominent homes, medical discourse took the language of practical public health and also professional advancement .He further adds that this was not to be so in classical colonies like, India, Nigeria, or Longo where it worked as an appendage of the army and spoke the idiom of political and cultural superiority.

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[37] Deepak Kumar, 'Unequal Contenders, Uneven Ground: Medical Encounters in British India, 1820-1920', in Andrew Cunningham and Bridie Andrew (eds.), *Western medicine as Contested Knowledge*, Manchester university Press, 1997, pp172-190.

[38] Deepak Kumar, *Science and the Raj, 1857-1905*, Oxford University Press, New Delhi, 1997.

[39] Anil Kumar, *Medicine and the Raj, British Medical Policy in India, 1835-1911*, Sage Publications, New Delhi, 1998.

[40] Ibid.,p.10

[41] Ibid.,p.11.

And the coming of the British with their renaissance 'science and culture' initiated the process of subjugation and captivation on India's traditional scientific systems. With the colonial power at the apex, the western sciences, without facing any recognizable resistance, gradually dethroned and out distanced the indigenous scientific systems and stamped the seal of superiority. Colonial medicine, according to Anil Kumar, marginalized the traditional medical systems by stealing a march over them, with superior etiological methodology and therapeutic efficacy.[42]

Confident in the progress made by Western medicine, European practitioners came increasingly to hold their indigenous counterparts up to ridicule.[43] One of the consequences of this divergence was that the East India Company withdrew its patronage to Indigenous medicine, as evidenced in the closure of the 'Native Medical Institutions' at Calcutta in 1835. State funded programme of vaccination also gradually displaced the indigenous practice of vaccination.

Mridula Ramanna opines while exploring the place of Western medicine in nineteenth century Bombay, that the British medical officials were confident of Western medicine's efficiency in treating diseases and of the need to promote the system. It is significant that not only imperial interests but also the desire to learn on the part of Indians, led to the promotion of Western medicine.[44]

She stresses David Arnold's argument that it was the participation of Indian practitioners that diminished the foreignness of Western medicine, and further says that Western medicine and Western medical techniques were accepted particularly where the results were effective but suspicions remained. While there was a competition between the practitioners of Western and Indian medicine, it did not result in one displacing the other. In fact, some Western educated doctors combined the two therapies and studied Indian ***materia medica*** and flora with medicinal value.[45] Thus the efficacy of Western medicine was perceived as being superior to Indian medicine.

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[42] Ibid., p.12.

[43] Biswamoy Pati and Mark Harrison, op.cit., p.65.

[44] Mridula Ramanna, *Western Medicine and Public Health in Colonial Bombay*, Orient Longman, New Delhi, 2002, p.2.

[45] Mridula Ramanna, 'Indian Practitioners of Western Medicine: Grant Medical College, 1845-1885', *Radical Journal of Health*, No.1, 1995,pp. 16-35.

While attempting to discuss vivid dimensions and debates on the spread of Western medicine and its relation with Indian medicine, Biswamoy Pati and Mark Harrison attempts to analyze the impact of colonialism and its consequent legacies on medicine in India. They argue that the relatively open and informal dialogue between Western and Indian practitioners, which characterized the seventeenth and eighteenth centuries, gave way to the scientific skepticism of the nineteenth century.[46]

It is stated that the positivistic trend in Anglo-Indian medicine was reinforced by the increasingly close relationship that was being forged between Western and Imperial power. Beginning, in 1835, with the abolition of the Native Medical Institutions (NMI) established in 1822 to teach both Western and Indigenous medicine in vernacular languages, the dominance of Western medicine was enshrined in the institutions of the colonial state, although the victory of the Anglicists in medical as in other forms of teaching was never complete.[47]

During the twentieth century, Western medicine also came to suffer from a crisis of self-confidence as it became apparent that its narrow, biomedical orientation impoverished medical care and could have harmful side-effects. This realization marked the beginning of a new phase in the relationship between Western and Indian medicine, in which the latter provided inspiration for a more holistic conception of medicine and health.

According to them, the relationship between Western and Indian medicine has passed through five stages.

1. First Stage: Till 1670: Both Indian and Western medicine, as a part of a dialogue, shared essentially the same view of the human body as composed of humors, and saw disease as arising from an imbalance of these due to lifestyle or environmental factors.

2. Second Stage: 1670-1750: With the development of the human anatomy and physiology, Europeans were led to view the body in fundamentally different ways from their Indian counterparts.

3. Third Stage: 1750-1820: While a gap in the fundamental concept of human body and medicine began to grow, serous researches were also initiated by the British in Indian medicine to combat particular diseases in the tropics. The emphasis was at this

[46] Biswamoy Pati and Mark Harrison, op.cit.,p.65

[47] Ibid.,p.66.

time very much upon the utility of specific remedies, whereas earlier visitors to India had been more inclined to treat Indian medicine as a totality.

4**. Stage Four: 1820-1900:** There was an attempt, by this time, to locate western science in a universal philosophical system. It was apparent by this time that there was a clear gap between Western and Indian medical systems. Pati and Harrison make it clear that though most of the Europeans had long since abandon a simple humoural theory of diseases, until the early nineteenth century many diseases were still regarded as being due to some imbalance of the bodily fluids. This notion was altered fundamentally, and the pathological anatomist viewed diseases as localized in a particular organ or tissue, rather than as general distempers affecting the body as whole.[48]

Thus, with the consolidation of British rule and achievements in medicine at home, Europeans' difference from Indians was emphasized, Western medicine got official patronage, and Indian medicine was marginalized. Thus medical paternalism in India came to an end.[49] Western medicine assumed a position of clear authority over Indian medicine and Indian bodies.

There were several areas in which the western and indigenous systems could have collaborated, but did not. Revival of Indian medical systems and synthesis between Western and indigenous medicine were preferable to the majority of Indians. Medical pluralism might have been more effective in a plural society like India. But it felt so marginalized and subjugated. The process of hegemonization was perpetuated through the network of institutions and hospitals and the Indian Medical service.[50]

Public health and sanitary medicine

The development of a public health system in India began only at the end of the nineteenth century. Then, it further developed increasingly by the 1920s and 1930s, as there was a reorientation of state policy, medical research, and sanitary

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[48] Similar argument is placed in another work by Mark Harrison. He argues here that the term 'tropical' was rarely applied to the Indian subcontinent until the nineteenth century, at least in respect of writings on disease and medicine. The introduction of the term probably owed much to the increasing number of military and naval men stationed in India from the late eighteenth century, many of whom had been in the Americas and the West Indies, where climates and diseases had long been described as tropical; Mark Harrison, *Climates and Constitutions, Health, Race and British Imperialism in India, 1699-1850*, Oxford University Press, New Delhi, 1999.

[49] Chittabrata Palit and Achintya Dutta,op.cit.,p.15.

[50] Ibid.,pp.15-16.

practice by making a shift, away from the old 'enclavism' and towards a more Indian-oriented system of public health.[51] Mark Harrison, in his study, attempts to show how the interplay between public health and medicine, on the one hand ,and political, economic and social and cultural factors, on the other, shaped the development of public health in India in the late nineteenth and early twentieth century.[52]

Harrison further makes an effort in highlighting the role of medical officers in shaping public health policy in British India. He examines the role of Indians in the policy making process at the district and municipal level[53] (from 1882), the conflict of views within the administration and among doctors, the significance of constraints like restricted local revenues, and the limited role of preventive medicine in the consolidation of birth control.[54]

According to him, sanitary initiatives were often opposed by local Indian 'rentier' class, particularly by Hindu community, which constituted the single greatest obstacle to the sanitary reform. A comprehensive work on public health based on government records and other reports, both Arnold and Harrison place a lot of emphasis on 'native resistance' to Western medicine in particular on opposition to policies of segregation and vaccination against Cholera, plague and smallpox.[55]

But in fact, the main criticism of the policy is that public health service in colonial India was run on a very small budget and mainly catered to the needs of the Europeans. Only the metropolitan cities and the districts headquarters were covered by this policy. The rural areas were served by ramshackle sub-divisional dispensaries manned by compounders having an inadequate supply of vital medicines.[56] Whereas according to Roger Jeffry the poverty of the Indian population was the most important problem in connection with public health in India. However, this view cannot be

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[51] David Arnold, "The Rise of Western Medicine",op.cit.,p.1076

[52] Mark Harrison, "Public Health in British India",op.cit.,p.11

[53] Mark Harrison, "Towards a Sanitary Utopia? Professional Vision and Public Health in India, 1880-1914", *South Asia Research*, Vol.10, 1990, pp.19-40.

[54] Ibid., p.30.

[55] Madhuri Sharma, *Western Medicine and Indian Response*, Unpublished MPhil Dissertation submitted to Jawaharlal Nehru University, New Delhi, 2006.

[56] Chittabrata Palit and Achintya Dutta, op.cit., p.22.

completely true since public health issues had been highlighted in many of the studies since the arrival of the British in India. Moreover, poverty itself was a net result of colonial exploitation in India.

Thus, the nature and extent of colonial intervention is subject to considerable debate. While there exist contenting views on the nature of Western intervention in India, there seems to be agreement among apologists for western colonialism that, in spite of the fact that economic considerations reigned prime among colonialism's objectives, it was able to provide a rational judicial system, reform of the inhuman cultural practices, altering an exploitative economy and to introduce efficient health care, sanitary and medical measures.[57] But one cannot denigrate the fact that during the heydays of colonialism any activity of health care was confined to the colonial metropolis. In order to sustain their physical forces such as the army, jails and barracks, the British had to seriously concern themselves about the health care facilities.

And therefore, Radhika Ramasubban argues that the British initiative in health was largely confined to the metropolis, and were concerned primarily with the well-being of the British, neglecting the general populace.[58] She argues that among the more important instruments of the British presence in India were those policies of the imperial and colonial governments concerning the investigation, prevention and cure of epidemic diseases. Periodic outbreaks of cholera, enteric fever, malaria, dysentery and diarrhea, influenza, and *kala azar* endangered the health of European officials — civilian and military and their families.[59] She further says that only metropolitans missed the benefit of sanitary reforms which swept through most of Europe in the nineteenth and early twentieth century.[60]

The tropical climate, although known to deteriorate health over a long period of time — was clearly not an all-important factor. Sanitary measures, when combined with improved diet (particularly controlled conception of meat and liquor), clothing

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57 Burton Cleetus, op.cit.,p.4

58 Radhika Ramasubban, 'Imperial Health in British india,1857-1900' in *Roy Macleod and Lewis Milton (eds.), Disease, Medicine and Empire: Perspectives on Western medicine and the Experience of European Expansion*, Rutledge, London 1988, p.38

59 Ibid.,p.38

60 Ibid., p.39.

suited to the climate, and smallpox vaccination, could safeguard the health of British troops. Smallpox vaccination was the first form of preventive medicine introduced by the British in India. In the words of the Royal Commission, apart from the question of humanity, the introduction of an efficient system of hygiene in India is of essential importance to the interest of the Empire.

John Chandler Hume discusses various dimensions of the development of preventive health policy in Punjab as a part of the dissemination of Western medicine, by mainly stressing on sanitary measures.[61] He opines sanitary reform was a controversial (at the administrative level) issue in the Punjab during the second half of the nineteenth century. One of the more important of this administrative conflict was related to the association of the whole sanitary program to the military — at least in the eyes of the civil administrators. One of the results of this linkage in the Punjab was that civil administrators viewed with suspicion public health proposals put forth by the government of India or by the Indian Army.

He further says that allopathic medicine was associated initially with British attempts to preserve and protect the health of European civil and military servants in India. Hence, he asserts the backwardness of the sanitary arrangements in Punjab in particular and allover India in general. For instance, he points out that the "medical service had no sanitary department or any specially trained sanitary officers; further, any knowledge obtained by medical officers had been too often obtained at the expense of the soldiers."[62]

Orientation of health policy of British India has also facilitated by the imperial colonization policy. A proper public health Ministry came to function only after 1920 with the passing of the Local Self-Government Act. The responsibility to tackle the epidemics and funding of rural health was now put on the shoulder of the District Boards and union Boards. But they failed to cope with the situation because of certain reasons and scarcity of health personnel.[63] The district dispensaries set up in rural areas were ill-equipped to tackle public health problems. Many municipalities and

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[61] John Chandler Hume, Jr., 'Colonialism and Sanitary Medicine: the development of Preventive Health policy in the Punjab, 1860 to 1900', *Modern Asian Studies*, Vol.20, No. 4, 1986.

[62] Ibid.

[63] Chittabrata Palit and Achintya Dutta, op.cit., p.23.

local boards were unable to raise sufficient revenue for vital sanitary reforms. More government aid and better supervision on the local boards were necessary.[64]

Biswamoy Pati and Mark Harrison, in an attempt to compile the Social History of Medicine in India,[65] thematically cover different topics on health and medicine in colonial India. It deals with public health issues, quarantine, and medical topography along with a detailed institutional history by young scholars. In this, Patho Datta opines in his chapter that the notion of public health emerged from a reformist mode of governance which was a part and parcel of British imperialism. He further says that fashioned out of the new administrative practices and conceptions of social order, this notion of the public was rather different from the 'reasoning public' familiar to readers of Habermas. This notion of 'public' was constituted by the state and was simultaneously defined and transformed through state action.[66]

Trade, War and Western medicine

The dissemination of Western medicine in India has been associated with the development of trade and occurrences of war by many scholars. For instance, Prathik Chakrabarty in his article, "Neither of Meate nor of Drink; But what the Doctor allowethe", attempts to analyze how the practice of medicine was shaped by the material culture of trade and the political appropriation subsequent to the military campaigns that unfolded in Madras over the eighteenth century.[67] He further asserts that the practice of medicine in Madras needs to be mapped along the trade routes, in the items of barter and in the markets of exchange, to construct a history of treatment enriched by trade. Further, he says that, medicine in Madras has to be understood in terms of the shifting political, military, economic and intellectual dynamics on the Corromandal coast; and he opines modern medicine developed as an attempt to adjust to and engage with the multifarious collections of ideas and items-sometimes co-opting them, sometimes realigning them in new modes of production.[68]

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64 Ibid, p.23.

65 Biswamoy Pati and Mark Harrison (eds.), *The Social History of Medicine in Colonial India*, Rutledge, London, 2009, p.55.

66 Ibid.,p.56.

67 Pratik Chakrabarty, '"Neither of Meat nor of Drink; but what the Doctor Alloweth":Medicine amidst War and Commerce in Eighteenth Century Madras', *Bulletin of History of Medicine*, 2006.

68 Ibid., p.13.

The financial and military momentum of the EEIC's army was the mainspring of British expansion, particularly in India, during the early eighteenth century. The establishment of the military medical department in Madras presidency needs to be seen as a product of that momentum. The practice of medicine in Madras also had to engage with battle fields and logistic concerns. During the 18th century, the history of hospitals in Madras was shaped as much by the requirements of the Carnatic and Mysore Wars.[69]

The development of Western medicine under a commercial background has also been stressed by scholars like Palit and Achintya Dutta. According to them, epidemic spread in India was due to commercial and military penetration and creation of colonial infrastructures — roads, railways, system of labour migration and so on. The unhygienic collie lines where the labourers were forced to stay by the British capitalist in the plantations, mines, and factories facilitated spread of the epidemic diseases.[70]

The Smallpox Vaccination

One of the main factors which endangered the reign of the British in India was the prevalence of smallpox in an epidemic and virulent form in many parts of India since the 1800s.Vaccination against smallpox, which had been developed in the 1790s by the English Doctor Edward Jenner, commenced in India in 1802, initially among the European Community in Calcutta. Unlike inoculation, which involved the implantation of a small amount of the smallpox virus, vaccination made use of the milder cowpox virus, which also provided immunity against smallpox.[71] Thus vaccination in India totally displaced the indigenous method of inoculation — variolation.

It was not long before a few Indians familiar with Western Science were encouraged to try vaccination and some administrators came to believe that such measure might prove popular among the Indian population as a whole. Vaccination, they believed, would demonstrate the benevolence of British rule and prove the superiority of western civilization. Among the most enthusiastic advocates of

[69] Ibid., p.13.

[70] Chittabrata Palit and Achintya Dutta,op.cit.,p.14

[71] Mark Harrison, "Public Health and Medicine in British India: An Assessment of the British Contribution", Paper delivered to the Liverpool Medical History Society,5 March,1998,pp.6-7.

vaccination were administrators of recently annexed provinces in Southern and Western India. For instance, in princely Travancore, vaccination was very much successful than in other provinces of British India. In 1805,William Bentic, who was then Governor of Madras ,urged the promotion of vaccination on economic grounds, claiming that every life is saved is additional revenue and an increase to the population and the prosperity of the Company's territories in an incalculable ratio.[72]

According to Harrison, an increasing proportion of provincial revenues were also spent on vaccination against smallpox, which now came under the charge of the Sanitary Commissioners. Although vaccination still encountered considerable practical difficulties, the proportion of the population covered by vaccination increased steadily. It can be argued that the decline in mortality from smallpox was the only significant contribution to mortality decline in India that can be attributed to colonial medical intervention. Vaccination was one of the few areas of public health for which provincial governments were directly responsible.

In an attempt to focus on bureaucratic roles and functions to understand why smallpox control policies and programmes were not successful, Sanjoy Bhattacharya, Mark Harrison and Michael Worboys state that the nature of the colonial Indian administrative apparatus, the sub-continental Public Health Departments and their vaccination sections were deeply fractured. As a result, cohesive plans for the extensions of vaccinal coverage usually existed only on paper in the form of published policy declarations.[73]

But one of the reasons why vaccination was encouraged by the British in India was that although Western medicine could no more cure smallpox than could its Indian counterpart, cowpox vaccination encouraged British physicians to see smallpox as a preventable disease at a time when the control of most other major diseases lay beyond their therapeutic grasp.[74] Because of its relative simplicity and cheapness and because it at first appeared to be such an unequivocal demonstration of the effectiveness of Western medicine, vaccination was taken up by the colonial state

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[72] Ibid.,p.7.

[73] Sanjoy Bhattacharyya, Mark Harrison, Michael Worboys, *Fractured States: Smallpox, Public Health and Vaccination Policy in British India 1800-1947*,Orient Longman, New Delhi,2005.

[74] David Arnold, "Colonizing the Body", op.cit., p.120.

and became emblematic of its developed humanity and benevolence toward the people of India.[75]

Medical Institutions and Western Medicine.

Western medicine had its offshoots so deep in India through a series of networks of institutions in the form of dispensaries, hospitals, asylums, which helped the process of dissemination throughout British India. Hotchmuth, in his article tries to discuss the colonial goal of disseminating scientific medicine and the approaches adopted in establishing the Calcutta Medical College.[76] He further shows a number of instances where scientific medicine was accommodated by the Indian environment. Directly connected to the condemnation of indigenous medical practice was the objective of disseminating scientific medicine. It was hoped that a kind of trickle-down effect would be achieved: first and foremost, an increasing band of practitioners were to be educated in scientific medicine at a medical college.[77]

Regarding medical institutions, while speaking on the politics of Lunatic Asylums, Waltruad Ernst, points out that, the relationship between medicine and colonial power was by no means straight forward. She argues how the function of colonial asylums shifted markedly over time from the incarceration of violent and intractable persons to more determined attempts at cure. Similarly, by the end of the nineteenth century, doctors came to exercise greater control over the running of these institutions than hitherto, which leads the author to the conclusion that there was a 'medicalization' of colonial power.

Pati and Harrison point out that mission hospitals and initiatives like the Dufferin Fund were also vitally important to female doctors trained in the west, a high proportion of whom left Britain in an attempt to escape the restrictions of a rigidly patriarchic profession. They further say that asylums and missionary institutions comprised a very small proportion of the hospitals and dispensaries established in British India. Hospitals for European soldiers, sailors and civilians were established from the seventeenth century in an attempt to reduce the high death rate suffered by the East India Company employees. These institutions according to Pati and Harrison

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[75] Ibid., p.120.

[76] Christian Hotchmuth, 'Patterns of Medical Culture in Colonial Bengal', *Bulletin of History of Medicine*, 2006, p.6.

[77] Ibid.p.7

played an important role in the development of Western medicine in the non-western countries.

Another notable argument is that the typical hospital of the early nineteenth century was an institution for the Indian poor, funded partly by government and partly by private subscription. As the century progressed, larger hospitals began to develop around the medical colleges established in the presidency and other large towns, as well as many smaller institutions, especially in rural districts.[78] In that year, the government gave up all pretense of providing comprehensive medical relief, declaring that it would never have the means to provide the necessary coverage. Instead, they decided to rely on training more private practitioners and nurturing the development of what was referred to as the 'independent' (Indian) medical profession.

Thus, the growing number of hospitals and dispensaries, according to Arnold, many of them founded by municipal authorities or Indian philanthropists, improved urban access and diluted the alien appearance of Western medicine.[79] Nevertheless, Western medicine was never so powerful in India as when it shed its colonial identity.

Debates on the spread of Western medicine do not end here. There are abundance of researches carried on different themes as well as aspects in various ways, those discussing the response of the natives towards the western system, relation and dialogue between Indian and Western medicine, midwifery and birth control, medical philanthropy, missionaries as patrons of Western medicine, state medicine and vaccination, disease control policies of the British etc.[80]

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[78] Ibid., p.7.

[79] David Arnold, "Rise of Western Medicine", op.cit., p.1076.

[80] For further debates on Colonialism and medicine in India refer the following works: Poonam Bala, *Imperialism and Medicine in Bengal: Historical Perspective* is an attempt to describe professionalization of imperial medicine in Bengal. In this she examines the impact of the state and its policies by looking at trends in professionalization of different systems of medicine-Ayurveda, Unani, and Western during the colonial period.

Similar debates could be seen in the following works: Deepak Kumar(ed.) *Disease and Medicine in India*, Amiya Kumar Bagchi and Krishna Soman (ed.),*Maladies ,Preventives and Curatives: Debates in Public health in India*; Chittabrata Palit, S*cientific Bengal*; Poonam Bala, *Medicine and Medical Policies in India*; Kavita Sivaramakrishnan,*Old Potions ,New Bottles, Recasting Indigenous Medicine in Colonial Punjab(1850-1945).* From another perspective, Biswamoy Pati's, *Situating Social History: Orissa (1800-1997)* deals with the indigenous notions on health and medicine, their perspectives on bodily disorders, remedies, the colonial intervention-smallpox vaccination, insanity and its institutions, leprosy and asylums etc. There are also abundance of writings on lunacy, its individual lucrative trade, lunatic asylums etc during the British paramountcy in India in general and in Madras Presidency in particular. For instance, Waltruad Ernst's '*Mad Tales from the Raj*' deals with various dimensions of the growth of lunatic Asylums in Madras Presidency. James H Mills's

The thesis is, therefore, being presented thematically based on the general understanding of the nature of colonialism and colonial medicine. The first chapter titled "Kerala on the Eve of Colonialism" deals with various concepts such as colonialism, modernity and the socio cultural milieu of Kerala during the colonial period. It also deals with colonialism and colonial modernity as different concepts and analyses how the process of socio-economic and cultural transformation followed in India in general and in Kerala in particular, in the 18^{th} and 19^{th} centuries.

An analysis of the socio economic milieu of Kerala under colonialism has been followed next for a better understanding of the situation of the advent and growth of Western medical practices in the state. The second chapter titled "The Smallpox Encounter: advent of Western medicine as preventive medicine in Colonial Travancore" thematically covers the advent of smallpox vaccination as preventive medicine in Travancore in the 1800s and its dissemination in Travancore for another hundred or so years. It also discusses in detail whether cowpox vaccination program was a successful venture in Travancore. It further proceeds to narrate the merits and demerits of Jennerian vaccination, and the colonial schema of vaccination.

The third chapter titled "The Medical Institutions in Travancore" deals with the beginning and growth of different medical institutions like hospitals and dispensaries in Travancore, and their institutionalization with popular acceptance. It covers various institutions built through government initiatives and other private institutions built on a grant-in-aid system in the state. The fourth chapter is titled "Missionaries and Western medicine in Colonial Travancore: 'Clinical Christianity' as Philanthropy", tries to analyse the works done by the missionaries to disseminate Western medicine in the State. The fifth chapter titled "Western medicine and Medical Institutions in Colonial Malabar: A comparison with Colonial Travancore" deals with the bewildering process of the growth of Western medicine in Malabar through a network of clinical institutions beginning with smallpox vaccination as preventive medicine. This chapter also explore how the infrastructural facilities in Western medicine like dispensaries and hospitals accelerated the process of institutionalisation of Western medicine in Malabar. Hence, it further proceeds

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Madness, Cannabis and Colonialism: The Native –Only Lunatic Asylums of British India, 1857-1900 is another notable work in this area.

towards a comparison between Travancore and Malabar mainly to look into the incongruity in the growth of Western medicine both in Malabar and Travancore during the colonial period.

Chapter 1

Kerala Society on the Eve of Colonialism

The aim of this chapter is to analyze the notion that the process of colonial modernization in India in general and in Kerala in particular involved the transformation of not only the economy, but also the patterns of social, political, administrative, and cultural life of the indigenous people. Any study on any particular theme of this period, for example, the colonial period will not be complete without a discussion on the nature and features of colonialism in India in general and in Kerala in particular.

The formation of modern Kerala goes back to 1956. The modern state of Kerala was formed in 1956 as a result of the amalgamation of three district provinces: Malabar in the north was ruled 'directly' by the British; Cochin and Travancore (the southernmost province), were ruled 'indirectly' by the British.[81] By the early 19th century, the British had entered into contracts with the two Princely States, which ensured them primary access to their commercial crops and land in return for the formers' protection.

Among internal factors accounting for the rapid changes of the mid-nineteenth century, the more outstanding were the threat of annexation of Travancore by the British government.[82] The British urged the monarchies to undertake a series of modernizing reforms, and their demands were met by a willing and acquiescent monarchy. These included comprehensive land tenure reforms as well as the expansion of education and health care. The advent and consequent institutionalization of Western medicine under strong princely patronage in Travancore would be considered as the skillful attempts of the British colonial agenda.

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[81] The Princely states of Travancore and Cochin came in to existence as strong centralized political units in the second half of the 18th century. The entire region of Kerala (Travancore, Cochin, and Malabar) passed under the British supremacy in the 1790's. Malabar was constituted into a single administrative unit by the 1820's and was directly administered by the British as a part of the Madras Presidency. Travancore and Cochin remained princely states as subsidiaries to the paramount power.

[82] T.K.Velu Pillai, The *Travancore State Manual,* Vol. 2, Kerala Gazetteers Department, Trivandrum, 1996, p.57.

Historiography

There have been different views on colonialism and its impact on indigenous population. Some have argued in favor of it as a 'civilizing mission' and others while holding prominent ideological positions, have highlighted the exploitative and destructive character of colonialism in India.[83] The evolution of the internal structure and institutions of Indian economy and society, as well as the social and political movements occurred not only in constant interaction with imperialism and under its hydra-headed domination, but also as an integral part of the development of colonialism.

In fact, the colonial structure encompassed the internal structure of society.[84] However, under the colonial dominance, a dichotomy was constituted between the west and the east in terms of science and anti-science, and tradition and modernity. The hegemony of the colonial state was interpreted as a result of the victory of the rational mind of the west over the irrational and feeble mind of the east. The colonial dominance and sustenance of its power were seen as the unfolding of the destiny of science.[85] In such a way, colonial dominance was justified and deemed as a necessity for the progress of the colonized people.

An alternative, however, was not entirely found in the western model presented by the colonial rule, particularly because of the apprehension aroused in the Indian mind through the cultural and intellectual engineering of the colonial state as part of its strategy of political control.[86] While traditional culture appeared inadequate to meet the challenges posed by the west, colonial hegemonization tended to destroy the tradition itself. Hence a struggle ensued against both which shaped the intellectual situation in colonial India.[87] Because of the colonial intervention, in Bipan Chandra's words "a whole world was lost, an entire social fabric was dissolved and a new social

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[83] The exploitative character of colonialism in India has been highlighted by scholars like Bipan Chandra, R C Dutt, Radha Palme Dutt, Dadabhai Naoroji and others. For details see, R P Dutt, *India Today*; Dadabai Naoroji, *Poverty and Un-British Rule in India* etc.

[84] Bipan Chandra, *Essays on Colonialism*, Orient Longman, Delhi, 2009, p.28.

[85] Burton Cleetes, op.cit., p13.

[86] K N Panikkar, *Colonialism, Culture and Resistance*, Oxford University Press, New Delhi, 2009, p.15

[87] Ibid., p.15

framework came in to being that was stagnant and decaying even as it was being born. To turn around a well-known phrase, India underwent a thoroughgoing colonial "cultural revolution""[88]

As mentioned in the introduction, although there exist contending views on colonialism in India, some agreements have been accepted by those who favor western colonialism's objectives — that it was able to provide a rational judicial system, reforming the inhumane cultural practices, altering an exploitative economy and to introduce efficient health care, sanitary and medical measures. Besides the transfer of Western technology to India, the spread of Western medicine was also increasingly seen as the landmark contribution to the material betterment of the country. At the outset, it was a highly contested field between Indian knowledge and European science.[90]

Colonialism as an ideology and as a practice had extended its reach to the remotest corners of the subcontinent and was writ large in the minds of the people, as a deliberate state policy as well as a fortuitous act brought about by the larger project of colonial governance and control.[91] For the indigenous societies, it was about expectations — among many others — born primarily from a deep sense of desire to bring about change in the material conditions of life, though accompanied by the painful separation from the family and society, and hard work in a different and difficult terrain which in the last instance was felled by disease and scaled by death.

The fundamental objective of British colonialism in India was the transformation of the indigenous economy to cater to the needs of industrialization in England. The development of the means of communication ,the creation of a railway network, the cultivation of commercial agricultural goods, etc., were designed to ensure that Indian economy functioned primarily as a supplier of raw materials to the home economy.[92]

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[88] Bipan Chandra, op.cit., p.28.

[90] For more details see, Harald Fischer-Tine and Michael Mann (ed.),*Colonialism as Civilizing Mission: Cultural Ideology in British India*, Anthem South Asian Studies, Anthem Press, London, 2001, pp.14-15.

[91] Burton Cleetus, op.cit., p.26.

[92] It is evident that the British conquest of India began even before Britain underwent its industrial revolution, whose onset can hardly be dated before the late 1760s. Britain until then was mainly a maritime power, and its policies were shaped by its mercantile interests. It was thus in the nature of

The shift in patterns of cultivation from food crops to commercial crops was entirely a new experience for the colony. As a result, new forms of economic relations grew. For the East India Company, there was the necessity to widen the cultivation of commercial crops to add additional revenue to the treasury of the metropolis. As a result, large scale movement of population took place, mostly as laborers from rural areas to industrial sites or to hilly terrains to clear the forest land so as to make them suitable for the cultivation of commercial crops.[93] The new geographical and cultural experiences, as a result of migration and the overcrowding of population resulted in large scale diseases and death of work force.[94] As early as 1806, William Bentic remarked, in a country where the state derived so large a share of income from the cultivation of the land, every life saved is additional revenue and an increase to the population and to the prosperity of the company's territories in an incalculable ratio.[95]

Thus, the colonial intervention in India brought about fundamental changes in the basic structures of the colony. The colonial state is a basic part of the colonial structure. At the same time, the subordination of the colony to the Metropolis and other features of the colonial structure evolve and are enforced through a colonial state.[96] One of the major arguments regarding the relationship between the metropolis and the colony was that the colony instead of undergoing a process of revolutionization of its productive forces, experienced underdevelopment. Although this process had influenced the development of Indian economy, it ultimately evolved and developed of its own. The evolution and development of Indian economy under colonialism varied in many ways. And therefore, the colony could not bring forth a mere replica of the metropolis. For the colonizers, India was perhaps a space where their colonial ideologies were implemented and experimented for further

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things that British powers in India should be exercised under the color and name of a mercantile firm, the East India Company. The object behind the country's conquest undertaken by the company was a purely commercial one, namely, to secure the revenues of India in order to use them as 'investments' for purchase of Indian products for sale throughout the world. Once the industrial revolution had completed its first phase in Britain by the early years of the 19th century, the complex of colonialism changed. Irfan Habib (ed.), *Man and Environment: The Ecological History of India*, *A Peoples History of India*, Vol: 36, Tulika Books, New Delhi, 2010, p.112.

93 Ibid., p.27

94 Ibid., P.27.

95 David Arnold, "Colonizing the Body*"* op.cit., p.12.

96 Bipan Chandra, op.cit., p.12.

development. It was sustained as a laboratory where colonial ideologies of the post-industrialized Britain were executed and experimented.[97]

One of the major areas where such truths were refigured and reenacted was in the sphere of health and medicine. While disease and ill health were seen as major reasons for the backwardness of Asian and African societies, Western medicine became the hallmark of racial pride and superiority of British colonialism.[98]

The sustenance of colonial political dominance in India was interlinked to the hegemonic existence of western science as an object of enquiry, as theoretical project, and as a culture, which sustained the demonstration of the material objects through the visual gaze of the physical object.[99] As an ideology, the instrumentalist notion of the Western epistemic paradigm and the accompanied superiority of western science remained the mainstay of colonialism in India, which was sanctified by governmental patronage and power.[100] Western notions of science demanded certain cardinal principles related to facts, observation, interpretation, universality, naturalism, knowledge based on written text, etc.[101] The superiority of western science was, thus, established.

The colonial modernity

The advent of the British not only initiated the process of modernization, but it also undermined the tradition of the indigenous. Hence Kerala society had undergone a process of social transformation in the 19th and 20th centuries. The process was set forth by the advent of British paramountcy in India. Kerala rose to the present status more or less as a result of colonial modernity. In another way, it can be considered as a byproduct of colonialism and the consequent and complex process of socio-

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97 Burton Cleetus, op. cit., p.28.

98 David Arnold," Imperial Medicine and Indigenous Societies", op.cit., p.7.

99 Burton Cleetus, op.cit., p.28.

100 Patronage to western medicine had been operating in many ways. At its height, the British Government patronized it in order to conquer the dreaded epidemic diseases. The Princely rulers, particularly of Travancore and Mysore gave strong patronage to Western medicine due to various reasons. Missionaries also patronized Western medicine in India as a part of their missionary activities among the indigenous population. The crux of the study would be to look in to these patronages given by various agencies to Western medicine in Kerala during the colonial period.

101 *Indian Medical Gazette*, March, 1919, pp.32-33.

economic and cultural transformation that occurred during 19th and 20th centuries under a colonial hegemony.[102]

In the period 1800-60, the interface of colonialism and traditional political-social processes set forth the elements in the making of the metropolitan-cultural hegemony in Kerala. A variety of resources, both coercive and ideational, were at play in the construction and perpetuation of colonial domination and hegemony. The military and political subordination of Travancore and Cochin states in the British paramount power had been completed by the first decade of the 19th century.[103] The political, and to some extent socio-ideological constitution of the state followed this. The colonialist tried to reformulate the inherited social relations and culture of the subject people to suit the colonial environment. Their effort was to re-mould an economy based on agriculture and handicrafts in the colonial pattern. The colonialist succeeded in linking social structure and social relations with market economy[104] .

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[102] Colonialism was much more than political control or colonial policy. The colonial state was undoubtedly a part of the colonial system; it was the instrument through which the system was best enforced; the colonial policies helped evolve and maintain the colonial structure. But the colonial state and colonial policies did not constitute the essence of colonialism. Colonialism was the complete but complex integration and enmeshing of India's economy and society with world capitalism carried out by stages over a period of lasting nearly two centuries. Colonialism as a distinct historical stage or period in the modern historical development of India, that intervenes between the traditional pre-British society and economy, and the modern capitalist or socialist society and economy. It is not a mere adaptation or distortion of the old, nor is a partially modernized society, nor a transitional state of society. Colonialism is also not an unhappy or badly mixed amalgam of positive and negative features. For more details, see, Bipan Chandra, op.cit., pp.1-17.

[103] The colonization was a protracted process, achieved through military conquest and diplomatic maneuvers over a period of almost one hundred years. The methods adopted by the English East India Company to realize its political ambitions masked, at least initially, its intention to transform its character from a trading organization to a territorial power. The strategy the company adopted in pursuit of this aim was to enter as subsidiaries in the ongoing power struggle among the Indian princes. Every conflict between the Indian rulers, which was almost continuous in the eighteenth century, was used by the Company as an occasion to increase its military strength and emerge as the decisive voice in Indian polity. For more than a century there after India experienced the ravages of colonialism. For further details, see K N Panikkar, "Colonialism,Culture",op.cit.,pp.2-3

[104] For more details about colonialism and its features, see Bipan Chandra, "Essays on Colonialism", op.cit., pp.1-58. He opines that the first basic feature of colonialism is the complete but complex integration and enmeshing of the colony with the world capitalist system in a subordinate or subservient position. Subordination means that the fundamental aspects of the colony's economy and society are not determined by its own needs or the needs and interests of its dominant social classes but by the needs and interests of the metropolitan economy and its capitalist class. It is important to note that subordination of the colony's economy and society is the crucial or determining aspect, and not mere linkage and integration with the world market, is true even of independent capitalist economies; nor does such linkage automatically lead to colonialism or semi colonialism.

In the traditional society of Kerala, the social institutions and social relations were based on *Jati sampratayam.*[105] Though there was a sizable number of Muslims and Christians, their social life and outlook also were influenced by this institution. But in the colonial economic environment many aspects of the caste system underwent great changes.[106] The market economy also affected the family organization, inheritance laws and social relations of the various communities. The society was divided with extreme inequality among castes and communities. "The basic structure of the caste system in Kerala was a Brahmin-centered and caste-Hindu oriented".[107] These Brahmins were at the apex of the society because they were considered as more 'pure and sacred' than others.

Purity was the pivot on which the caste system turned. The inflexibility of the social environment in the 19th century was largely imposed by the rigidity of the caste system.[108] It was under the British colonial rule that a basic change took place in the life of Kerala. It was a period of break from the continuity of the past. Hence it constitutes a rupture. It can be said that "…the 'Civilizing Mission' the British undertook after the conquest marked the beginning of a new stage in colonization where the natives were brought under the administrative control, presumably for improving their moral and material conditions. The opportunity for liberating the 'natives' from the 'unhappy system of oppression' of oriental despotism was considered sufficient justification for conquest. The setting up of administrative structures, creating ideological institutions, and transforming cultural practices that followed the conquest were, therefore, approached with a reforming zeal…"[109]

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105 Dr.S Ramachandran Nair, *Social and Cultural History of Colonial Kerala*,p.1

106 Ibid.,p.2

107 B. Rajeevan, "Cultural Formations of Kerala", in PJ Cheriyan (eds.),*Essays on the Cultural Formations of Kerala, Lessons from Kerala*, Government of Kerala Press,Trivandrum,2000,p.4

108 M Kabir, T N Krishnan, *Health and Development in India, Social Intermediation and Health Transition, Lesson from Kerala*,p.4

109 Imbued with a sense of purpose and conviction of superiority, often tinged with racism, the British administrators undertook the task of transforming the 'natives'. He further says by quoting Albert Memmi that, the sense of superiority was derived from 'three major ideological components -- the gulf between the culture of the colonialist and the colonized; the exploitation of these differences for the benefits of the colonialist; and finally the use of these supposed differences as standards of absolute facts. The 'cultural gulf' provided the necessary rationale for conquest and the subsequent attempt at social engineering… Harald Fischer –Tine and Michael Mann (eds.), *Colonialism as Civilizing Mi*ssion, London, 2004, pp.1-26, quoted in K N Panikkar, op.cit.,p.3

But the economy of colonial exploitation was one that hindered the development of Kerala as a modern society which was lying shackled in the old feudal relations. The Kerala scene from the close of the 18th century to the close of the 19th century was that of the co-existence of change and changelessness. In those days, Kerala was connected with the modern world as part of the growing world market but at the same time it was being shackled in the world of the past.[110] Kerala was a society in which tribal, slave and feudal forms co-existed under colonial domination. The caste, sub-caste system, un-touchability, joint family, serpent worship, devil worship, witchcraft, evil eye, all these relics from the existing phases of history turned Kerala a living museum under the colonial protection.[111]

The primary condition necessary for the existence of any modern society is the freedom of the people to move, associate and co-habitat among themselves at their will. But in the case of Kerala, even these primary conditions for the existence of a civil society had to be attained only through fierce struggles. One of the necessary elements for the formation of a new civil society is the modern bourgeois family system. The possibility of the natural emergence of this new family system was also closed down in Kerala due to its deep entanglement in the different forms of joint family system. So, at the outset, the context of the renaissance in Kerala was the spontaneous and conscious struggles for the creation of the primary conditions of a civil society by breaking the barriers of caste and family system. Thus, the 19th century Kerala witnessed a cultural and ideological struggle against the ideological

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[110] In connection with this view, it is worthwhile to note some observations made by Prof. Bipan Chandra on 'colonialism and modernization' of the Indian economy. He says that the basic integration of India with the world capitalist economy, its transformation into a classic colony and a classic under developed country, occurred during the nineteenth century, precisely under the banner of modernization, economic development and transplantation of capitalism. Bipan Chandra, op.cit., p.26.

[111] In constructing a system of domination the British did not adopt the method of cultural displacement by destruction as in the case of colonial depredations in Africa and South America. Instead they preferred persuasion, if possible and coercion only if necessary. The colonial cultural policy and practice in India adopted both expropriation and appropriation of the indigenous. The colonial agenda was, therefore, janus faced; retrieving and commending the past achievements of Indian civilization on the one hand, and on the other, taking steps to subject the 'natives'; to an ideological --- cultural system, privileging the Western. In pursuit of the former the colonial rulers evinced considerable interest in Indian cultural heritage: traditional texts were codified, cultural artifacts were collected, ancient monuments were preserved, and civilization sites were reclaimed. Colonialism thus sought to project the image not of a brutal destroyer of indigenous culture, but of its preserver and benefactor…K N Panikkar, op.cit., pp.10-11.

hegemony of the Brahmins. This struggle was due to structural changes in the society and the consequent emergence of a new class, the educated middle class.[112]

Western Education: a path to modernization!

One of the tools of the process of 'civilizing mission', according to the British as well as the Missionaries was the dissemination of Western Education. Although, the rise and growth of the 'middle class' and a 'new intelligentsia' was due to several reasons, western education had played a vital role in this regard. The scientific spirit that had rapidly been transforming the West had not reached the shores of India.[113] As elsewhere in India, in Kerala also the ideas like rationalism, scientific spirit and humanism etc., developed through the spread of English education.

The foundation of western education was laid in Kerala in the beginning of the 19th century.[114] The effort of the English East India Company in this direction may be said to have begun with the Charter Act of 1813. In 1813, when the Charter Act was passed, it was decided a fund would be allotted for the development of India. But no British authority had taken courage to spend the money in India.[115] By the introduction of English as the medium of education, Macaulay's aim was to strengthen and perpetuate the British Empire in India.[116]

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[112] P.Chandra Mohan, 'Growth of Social Reform Movement in Kerala', in P J Cheriyan (ed.), *Perspectives on Kerala History*, Manaveeyam, Trivndrum,1999, p.456.

[113] *The History of Freedom Movement in Kerala*, Compiled by the Regional Records Survey Committee, Government of Kerala, Trivandrum, 1970, p.71.

[114] S.Ramachandran Nair, *Social and Cultural History of Colonial Kerala,* p.3

[115] The Fund was not spent for a few years in India because the Government found it difficult to decide what kind of education it should promote. As a result, a Committee of public Instruction was appointed in 1823 to resolve the crisis. Confusion existed and remained unresolved on the question of whether the Government should encourage the revival and spread of oriental learning and literature or whether it should introduce English education A controversy ensued in which the Orientalists headed by Dr.Wilson pleaded for oriental learning, whereas the Anglicists led by Sir Charles Trevelyan supported the spread of English Education. Lord Macualay, who arrived as Law Member in 1834 also joined with the Anglicists, Thus on 7 march 1833 the issue was finally settled by a resolution that "the great object of the British Government ought to be the promotion of European literature and science among the natives of India and that the funds appropriated to education would be best employed in English education alone". Regional Records Survey Committee, op.cit., p.72.

[116] P.K.K.Menon,*The History of Freedom Movement in Kerala, Kerala* Gazetteers Department,Trivandrum,1999,p.99

The Charter Act also allowed the Christian missionaries to work in India[117]. They were allowed to work in the expectation that the conversion of the local people would also change their consumer habits. The Company believed that change of religion would make the local people consume more European goods. The sole purpose of parliamentary enquiries of 1813 was to discover ways and means of replacing indigenous produce by British substitutes in the Indian market. The Christian missionaries and the government gave all kinds of encouragement to English education. The missionaries took a leading role in propagating western education. New economic relations and cultural elements appeared in Kerala only after the British domination.[118]

Travancore and Cochin under the indirect British rule showed much enthusiasm in disseminating English education in their own states. But at the same time, Malabar lagged far behind Travancore and Cochin in educational growth.[119] Internal political conditions in Travancore and Cochin regions were relatively peaceful except for a short period from 1793 to 1810.The efforts initiated by Colonel Munroe, the Resident-Dewan of Travancore and Cochin during the early years of the 1820s for restoring internal political peace took the form of a series of socio-economic reforms including administration, trade, land distribution, education, medicine etc.

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117 S. Ramachandran Nair,op.cit.,P.3

118 P .K .Gopalakrishnan, *Keralathinte Saamskaarika Charitram* (mal.), Kerala Bhasha Institute, Trivandrum, p.516

119 Among the factors which favoured Travancore and Cochin in educational growth, the following are, according to P R Gopinathan Nair, very important.1.The existence of an economy of small peasant proprietors and tenants with substantial economic independence and sustained interest in the land acted as a dynamic force of socio economic change including educational growth. 2. The policy of land distribution initiated by the kings of Travancore and Cochin in the 1750's and pushed further by the paramount powers representatives, the British Resident, in the second decade of the 19th century seems to have so much whetted the appetite of the peasants for greater security and improved terms of land tenure that public demand for the conferment of ownership rights on all classes of tenants grew stronger over the years. In Travancore landlordism and feudalism declined quite rapidly from the 1860s onwards; in Cochin rapid changes came about by the beginning of the 20th century. P R Gopinathan Nair, "Education and Socio Economic Change in Kerala", *Economic and Political Weekly*, p.29.

Education: from Indigenous to Western.

Before the spread of Western education, the mode of education in Kerala largely corresponded to the caste and gender-based divisions of labour which prevailed then. *Nambudirimar* (Nambutiri Brahmins), who formed the priestly stratum, received their first training in Sanskrit, astronomy and elementary arithmetic at home and subsequently, in texts like *Vedas*, *Sastras* and *Upanishads* in the *Matam* (Brahmin centre for religious instruction).[120]

Nayanmar (Nairs) acquired basic lessons in Malayalam, Sanskrit, astronomy and arithmetic in the *Ezhuthukalari* or *Kudippallikudam* (one teacher center of learning) and later, physical training in the *Kalari*. Young persons of these communities desirous of pursuing higher learning in fields like astronomy, medicine and Sanskrit could attach themselves to experts in these fields for longer periods. Muslims attended *Madrasas* or *Otupalli* where religious instruction and training in Arabic-Malayalam (also known as *arabimalayalam)* were imparted. A major part of Syrian Christians and to a lesser extent Ezhavas, received similar instruction[121].The various centers of learning, *Matam, Kudippallikudam and Madrasas*, were born of local initiative and maintained by local resources.

Pulayar and other low caste Hindus, who were condemned solely to physical labour, received no literary or religious instruction but only practical learning in their traditional occupations like agriculture, pottery, weaving and smithery under the guidance of an elder proficient in the respective field. Girls, even among upper caste Hindus and Syrian Christians, received little more than a basic knowledge of reading; they were mainly trained to play gender-specific roles in the household. Girls of lower caste Hindus were trained in gender specific roles in caste-occupations as well.[122]

The nineteenth century set off new trends in the learning process, in particular, and then began the standardization of education (across castes and communities) and a new kind of its institutionalization. In contrast with the unevenly distributed centers

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[120] Home centered education was one of the features of indigenous form of education which prevailed in Pre-colonial Kerala.

[121] K T Rammohan, *Material Processes and Developmentalism, Interpreting Economic Changes in Colonial Tiruvitamcore*, Unpublished PhD Dissertation, Submitted to Mahatma Gandhi University, Kottayam, Kerala, p.24.

[122] Ibid., p.25.

of learning and centers supported locally, there began an orderly development of schools. Western education began to get momentum as it was taken both by the British and Missionary authorities to 'civilize' the people.

However, the change in the mode of education was not generated by a basic change (at least initially) in the prevalent social order of caste and gender, integral to which was the earlier mode. Rather, the change was initiated from above. The two agencies at work in the process were the Travancore State and Protestant Missionaries. In 1802, the Travancore government decided to set up small centers of learning in every *Kara.*[123] From the second decade of the century, the government began to pursue the policy systematically. This was in the context of remodeling the state administrative system on the British Indian pattern and the consequent need to find suitable persons for employment in government services. Steps were taken to employ two teachers each in every '*Mandapatumvatukal'* (Taluk) to impart instruction to children in reading and writing Malayalam, and in astronomy and elementary arithmetic. Classes were conducted alongside the *Mandapatumvatukal Kacheri* (Taluk Office).[124]

Officials at the local level were required to submit fortnightly reports on the working of these centers. It is doubtful whether the low castes Hindus were admitted and whether girls attended these schools.[125] Most probably, the students were male children of government officials (mostly Tamil *Brahminar* and *Nayammar*), and Syrians and others from upper caste and communities locally important. Proclamations were (locally known as *Neetus* issued by Rulers) issued in 1818, sought to initiate measures to complete textbooks in Malayalam for use in the newly started schools. The books were aimed at teaching children.

The nature of education began to transform, as the decision of the British paramountcy to introduce English education in India took effect particularly after the Charter Act. The missionaries had initiated this activity as they had got a right to work

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[123] 'Kara' is a sub unit of a village, for more details, sees Genevieve Lemerciner, *Religion and Ideology in Kerala*, p.206.

[124] K.T Rammohan, op.cit., p.25.

[125] Available records do not mention about the participation of girl child in these learning centers.

in India. Thus, before the state initiative in English education, the Missionaries had started imparting English education through a network of schools and other institutions in Travancore. Gradually, indigenous forms of education started deteriorating. New trends began to grow in this scenario.

Towards Western education

Education had been a major activity of Protestant missionaries since their arrival in Travancore in the first decade of the 19th Century.[126] The introduction of Western education acted as a catalytic agent.[127] Since Protestantism was directly based on Gospels, its spread required at least reading skills among the people**.** In Travancore and Cochin, several protestant missions started working in the early decades of the 19th century under the patronage of the local rulers.[128]

Thus in Travancore, Ringeltaube established the first school along with the first Church at Myladi in 1809.[129] Very often, the same building served for both worship and teaching. When the mission station was shifted to Nagercoil in 1818, the school was also transferred. The Nagercoil School was conceived as an 'English School.'[130] By about 1803 itself, Rev.Mead of the London Mission Society turned its

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126 Throughout the 19th Century the Travancore Government did practically nothing to promote education among backward and depressed communities—which together accounted for nearly half the State's population –or among women. Thus the early attempts at education among backward and depressed communities came not from the Government but form the Missionaries. It was the Grant-in-aid education code of 1895 which for the first time provided funds for the establishment of schools for backward classes in Travancore. E.T Mathew, 'Growth of Literacy in Kerala: State Intervention, Missionary Initiatives and Social Movements' in *Economic and Political Weekly*,Vol.34,No.39 (Sep.25-Oct.01,1999),p.81.

127 The British administration recognized no caste barriers in the matter of recruitment to the service, though this was not fully true of the administration of Travancore and Cochin where the upper castes were patronized by the princely order. The different communities of the land, particularly the Nairs and the Christians, soon took to Western education in order to become eligible for recruitment to Government service. The role of the Christian Missionaries in the spread of Western education and liberal ideas deserves special mention in this context. A Sreedhara Menon, *A Survey of Kerala History*, D C Books, Kottayam, 2007, p. 311.

128 Ibid., p.311.

129 The London Missionary Society (here onwards LMS) played a major role in the educational development of Southern Travancore. Its educational activities began with the arrival of Rev. William Tobias Ringeltaube (A Prussian Missionary) in Trivandrum in May 1809. After spending more than a year, learning Tamil language at Tranquebar, he built the first protestant Church in Travancore in 1809 by receiving permission from the Maharaja of Travancore; and his interest in education was kindled by Col. Munro, who was the Resident of Travancore during that period.

130 K T Rammohan, op.cit., p.27.

attention to educational activities. In 1813, the Church Mission Society (CMS) established a college and a seminary at Kottayam.

Salvation Army was yet another missionary group worked in Nagercoil. Under the initiatives of the Salvation Army many English schools were started in the premises of Nagercoil. Apart from a school at Myladi, Ringeltaube set up six schools before he left Travancore in 1816. The number of London Missionary Society schools rose to 16 by 1819.[131] The Travancore government had rendered all the assistance for the functioning of these societies[132].

The village schools partly conceived as 'feeder schools' to the Nagercoil English school, were run according to a unified plan. In 1813, the Church Mission Society established a college and a seminary at Kottayam. The Travancore Government started several schools to give English education to its people in the first half of the nineteenth Century. But this was conducted under the strong influence of, and with the direct help of, the missionaries.[133] In 1834, the first government English school was established in Trivandrum.[134] It aimed at the maintenance and education of young men for the priest-hood and as school masters, and also to educate the youth in general. The Church Missionary Society (CMS) School was set up during Munro's residency. The first college connected with the CMS was established in 1814 under

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131 Ibid., p.27.

132 P K Gopalakrishnan, op.cit.,p.519.

133 Koji Kawashima, *Missionaries and a Hindu State Travancore 1858-1936*, OUP, Delhi, 1998, p.85.

134 Education in the modern sense of the term in Travancore may be said to date from the year 1834 A.D., when the first English School worthy of the name was established. This school was taken over by His Highness and was ultimately established on 13th December 1836 as the Rajah's Free School at Trivandrum. It may be of interest to note here that this was the first English School in Southern India. It was opened four years before the oldest school in Madras. *The General Assembly's institution, the Father of the Christian College---and seven years before the 'High School of the Madras University', from which the Presidency College emerged, came in to being. We may well be proud that, though wisdom is generally reputed to come from the north, the first step toward the introduction and diffusion of western learning was taken in this southern most corner of Indian Peninsula*. From that time on the progress of education has been rapid and sound, so much so that Travancore now occupies a foremost place in India, whether as compared with the other Native States or the British Provinces…V Nagam Aiya, *The Travancore State Manual*, Vo.11, Gazetteers Department, Government of Kerala, Trivandrum, 1999, p.443.Words given in italics are from the speech by Pattom Thanoo Pillai, late chief secretary to the Government of Travancore, quoted in T K Velupillai, *The Travancore State Manual*, Vol.11, Kerala Gazetteers Department, Trivandrum, 1996, p.443.

the stimulus and direction of Col. John Munro, the British Resident.[135] It was called the 'Kottayam College'. The Government itself welcomed the college as a place for general education and granted it a generous amount in donation.[136]

By 1821, the society had established 35 schools. District schools were started at Kayamkulam, Kottar, and Chirayankil etc. Many vernacular schools were amalgamated with the English schools in 1860 at those places.[137] In 1865, the question of improving the system of vernacular education also engaged the attention of the government.[138] The protestant missionaries displayed active interest in female education. Probably this might be one among many factors for the achievement of popularity for the missionary activities done by the protestant missionaries in Travancore during this period. The liberal ideas propagated by them in imparting education, irrespective of caste or creed, was yet another cause for the popularity. Thus female education began to get momentum in Travancore.

In 1818, the first school for girls was established by the church missionaries at Kottayam. During the next year, a second one came up at Nagercoil under the leader of the London missionaries. The stated aim of the Nagercoil School was to give plain instruction united with a Christian aid Moral education.[139] These schools were managed by wives of the missionaries. In a pamphlet issued in 1831, the London missionaries exhorted parents to send their girls to schools. About a quarter of the students in LMS schools were girls. In 1857, there were 1468 girls in LMS schools[140] and 444 in CMS schools.

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135 W.S.Hunt, *The Anglican Church in Travancore and Cochin, 1816-1916*, C M S Press, Kottayam,1918,p.75.

136 Koji Kawashima, op.cit., p.89.

137 P K K. Menon,op.cit.,p.99

138 Ibid., p.101.

139 V Nagam Aiya, *The Travancore State Manual*, Vol.III, p.475.

140 The Most important name connected with educational work in Travancore was undoubtedly that of Rev. Mead. From the date of his arrival in Travancore in 1817 as a Missionary of LMS till his death in 1873, he threw his heart and soul in to the work of education. The year after his arrival, i.e., in 1818, he founded the Nagercoil Seminary which was the first institution to give regular English education in Travancore. Mr. Mead who had settled at Nagercoil, established several schools besides the Nagercoil seminary. His long and intimate connection with English education induced the Government to appoint him as Superintendent of Schools in 1855, and in this capacity he did much to further the cause of education in Travancore. He was also the pioneer of female

The Protestant missionaries made the first moves in imparting formal technical education for girls and boys in Travancore. In order to impart secondary education, the CMS launched a grammar school at Kottayam. Among those who got admission in this school, Syrian Christians and Nairs were in the majority. Later, in 1838, this school was renamed as the CMS College High School.[141] The CMS schools for primary education were called the 'Parochial Schools' or 'Parish Schools.'[142] According to the statistics of 1904, they had under their charge 290 schools with 13,148 pupils under instruction.[143]

Besides the general aim of communicating "useful knowledge", their entry into this field was prompted by the need to facilitate employment for the children of converts who were denied access to traditional avenues of employment because of conversion. An industrial school for boys was set up by the London Missionaries in 1820, imparted training in carpentry, weaving, rearing of silk worms, bookbinding and printing.[144] Both these missionary societies conducted a few separate schools for low caste Hindus. The first of these was established by the Church Missionaries at Alappuzha in 1835. This was followed by the one at Kottayam, and another in the southern part of Travancore by the LMS. The missionary boarding schools were mostly confined to children of adherents. The day schools were however open to all communities and religions. In the Nagercoil School, about half the students were drawn from various Hindu castes, including the Brahmin caste. Most of them had been prompted by the desire to learn English.

Knowledge of English not only facilitated access to government employment but also helped them to be like their British masters, and 'be modern'. Interestingly, the utility equation was mutual. There were only 20 schools run by the London Missionaries in 1822. In 1826, there were 1051 students enrolled in various Church Missionary Society schools; by 1858, this increased to 2719. By 1860, this had

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education in the State. He established industrial schools and did much to bring about the abolition of slavery. According to their statistics of 1904, they had under their charge 384 schools with 15,641 pupils. Ibid.,pp.446-47

[141] Koji Kawashima, op.cit., p.89.

[142] Ibid., p.89.

[143] V Nagam Aiya, Vol.II, op.cit., p.447.

[144] Ibid., p.475.

increased tenfold.[145] The number of students attending rose from 188 in 1815 to 6700 in 1860.

Government and local bodies gave financial assistance even to private schools and English education made rapid strides in Travancore and Cochin. As expected, the English education had changed the taste of the educated people. The low castes that had been denied the right of traditional education were provided with opportunities for English education. The Government also gave them all kinds of encouragement including fee concession and took measures for the promotion of oriental learning.

The missionary influence on and through education was more qualitative than quantitative. A major aspect of their intervention was in terms of introducing in the local society the idea of a standardized education across castes, or modern schooling. Secondly, the importance of their intervention lies in the influence it exercised on the state and other agencies, which imitating the church and with its assistance, assumed the role of a provider of education. Above all, the missionary schools had a crucial role to play in accelerating the spread of Protestant faith and its associated ideas.[146] The foundation of a metropolitan style of education in the state was thus jointly laid by the state and missionaries.[147] Both the government and the Missionaries emulated each other to impart English education in Travancore.

However, despite competition between the Travancore government and the Missionaries in the area of education, the relationship between them seems to have worked very well and was mutually beneficial.[148] There was a criticism against government patronage for education and at least a section of the British officers feared that English education might create problems for the administration. In

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[145] K T Rammohan, op.cit.,p.29.

[146] The influence of the British rule, indirect as it was within these princely domains, seems to have also opened the door for specifically British Protestant missionary activity. This was to have consequences that would be serious for the welfare of various wings of the Syrian Christian community and, indeed, for Christians in Kerala generally. Penelope Carson, 'Christianity, Colonialism, and Hinduism in Kerala: Integration, Adaptations, or Confrontation?' In Robert Eric Frykenberg (ed.), *Christians and Missionaries in India: Cross Cultural Communication since 1500 with special reference to Caste, Conversion and Colonialism*, Routledge Curzon, London, 2003, p.142.

[147] Ibid., p.29.

[148] Koji Kawashima, op.cit., p.92.

Travancore, the state accepted the responsibility of imparting free primary education to all children irrespective of caste or creed.

The influence of the Protestant missionaries in this effort by the government is important. The Syrian Christians, the Malayalee Brahmins and Muslims who possessed a higher social status, but had been denied a corresponding share of influence in politics and administration due to lack of education, began to send their children to schools. The Ezhavas, the artisan communities, the backward and the depressed castes realized the importance of education. Education to these people became the means to secure a just share of political power and representation in the civil service. In 1941, Travancore had the highest literacy rate among princely states and the provinces of British India. The Travancore University was established during this period. Some sections among Christians achieved tremendous progress in education. The growth of literacy among Muslims was high in Travancore compared with Cochin and Malabar. Similar was the case of backward communities.

Princely patronage to Western education

We do not hear of any spectacular efforts of the Travancore state in the realm of education between 1818 and 1834. Probably, a limited network of primary schools and a few Malayalam schools were established. Otherwise, the initiative seems to have been with missionaries during this period. A change set in during the 1830, when the state started its efforts to English education following the missionaries. In 1834, Raja Swathi Tirunal, accompanied by the Resident and Dewan, visited the school of the London Missionary Society at Nagercoil. He was so much impressed with the importance of English education as a civilizing agency, that he invited John Roberts, headmaster of the school, to open a similar school at Trivandrum. Roberts agreed, on the condition that he be allowed to take Bible classes in the school. Initially, the government contributed fees of all the 80 students in the Trivandrum school. Within a couple of years, the school was taken over by the Government and it was designated as ‘Raja’s Free School’.

The strength was raised to 100 and all students received education free of cost. By the early 1860s, the number of students rose to 500. The curriculum consisted of logic, mental philosophy, natural philosophy and higher branches of mathematics. This school continued to be under British Headmasters even after government

takeover. The committee of Britishers appointed to examine and report on the progress of the school expressed satisfaction with the institution and recommended that the government may hold out some prospects of further employment in public service to the meritorious students.[149]

The Resident, General Fraser, took a deep interest in the spread of English education in the state and at his instance; a few District English schools were established as feeders to the Raja's free schools. The Raja's Girls' School, the first state run school for girls was opened at Trivandrum in 1859, followed by another within four years. By the mid-1860s, the Government Higher schools and the missionary run higher schools began to prepare students for the same public matriculation examination of the University of Madras.

Though education was standardized across people of different castes and communities in earlier times, it became more secular in the later years. With the development of more schools, and separate schools for girls, they also began to receive similar education as boys did. Different castes received education through different agencies. The state catered to the needs of upper castes, whereas the missionaries took care of lower castes. The state schools were not open even theoretically to lower castes until the government issued a proclamation in 1870 granting access to all sections of people. They actually became accessible to lower castes many decades later.

The emergence of caste organizations had a lot of influence in the growth and spread of western as well as vernacular education. There was hardly any community or caste in the state without an association of its own for self-development.[150] Therefore, these organizations had to concentrate in the development of education among their concerned communities as lack of access to education was one of the problems faced by each and every backward community. Since the formation of SNDP, it had concentrated on the admission of children to school. The annual Report of SNDP had clearly evaluated the educational achievement of Ezhava community. In 1914 there were total 23,893 Ezhava students in Travancore, which later in 1918

[149] T K Velu Pillai,Vol.II,op.cit.,p.552

[150] S Ramachandran Nair, op.cit., p.28.

increased to 51,114. The Pulaya community had also achieved a parallel growth. Though the number of Pulaya students was 2000 in the year 1914, later it increased to 17,753.

Within 10 years of the working of *Sadhu Jana Paripalana Yogam*, it was able to send as many as 17,000 Pulaya children to the schools and this indicates that within four years there was an 850 percent increase. It indicates yet another fact that there was a rapid achievement in education within 10 years due to the activities of social reformers in the state than what was achieved by the missionaries within 100 years. Education also developed further under strong pressure from the different low castes.

The government of Travancore and the government of Cochin had to allow children of those communities to study in the government schools. By 1908, Travancore government opened 370 government schools to all castes. By 1922, the government schools except 24 of them were opened to all and in 1930 there were about 3628 schools in Travancore which admitted all children irrespective of caste or creed. The number of schools barred to the low castes was only 10.[151] The literacy of Ezhavas in Travancore was 46.5% and in Cochin it was 34.7% in 1941. They stole a march on the other communities towards literacy.

Western Education in Malabar

Unlike Travancore and Cochin, where an indirect rule of the colonial authority existed, the Malabar area had a different experience of colonialism under the direct supremacy of the British. The initial decades of British paramountcy did not bring any fundamental changes in the traditional system of education in Malabar.[152] Although there was an offer from the government that priority would be given to English educated men in government services, the higher caste people did not show much enthusiasm in attaining English education. This may be because of several reasons. Primarily, the caste rigidity did not allow the Brahmins and Nairs in getting access to English education. At the same time the lower castes did not have any opportunity to

[151] Ibid., p.41.

[152] K K N Kurup, *Adhunika Keralam: Charitra Gaveshana Prabandhangal* (mal.), State Institute of Langauges, Trivandrum, 2011, p.21.

get access to English Education.[153] Their week economic and social status was a hindrance to it in Malabar.

However, the Ezhavas, a lower caste group in Malabar had acquired conventional training in Sanskrit. This also prevented the Ezhavas to get access to Western Education in Malabar. People from this community had established relationship with the Europeans in various ways such as laborers in their plantations, as sepoys in their army etc. This naturally led to the economic as well as social emancipation of at least a small number of people from such lower castes. This naturally made them get access to English education.

However, English education was mainly initiated under the leadership of the Basel Evangelical Missionaries in Malabar.[154] Thus the Basel Mission established several primary and secondary schools in different areas of Malabar and South Canara.[155] In 1877, a Secondary school was started under the initiative of the Zamorin of Calicut, which was later upgraded to the status of a second grade college. The Basel Mission School established in Kallai earlier was upgraded to the status of a

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[153] One of the earliest schools for English education was initiated under the auspicious of the Roman Catholic Church in 1696 in Calicut. It was named the Parish School, and later it became the St. Joseph High School. Later it was upgraded as an Anglo Indian School. K A Jaleel, 'Malabar Vidyabhyaasa Rangathil', in M G S Narayanan (ed.), *Malabar: Malabar Mahotsav Souveni*r, 1993, Calicut, p.636.

[154] As per the Charter Act passed by the British Parliament in 1813, the Protestant Missionaries got permission to conduct missionary activities in India. In order to impart training to these missionaries, a Missionary training organization was established at Basel in Switzerland in 1815. During this time this organization had obtained permission to conduct Missionary activities separately in the south western part of Indian subcontinent. It was due to such an initiative that Basel Evangelical Mission came to India and started functioning in Northern Kerala, particularly in Malabar and South Canara. Hence they concentrated their activities in the places like Kannur, Calicut and Tallicherry etc. Ibid., pp.21-23.

Basel Mission started taking up direct missionary activities in India from 1834 onwards. The first Basel missionary landed at Calicut in October 1834, but they proceeded to Mangalore, which became the centre of religious activities of the Mission. It is important to note that Basel Mission initially concentrated their activities in the coastal areas of Malabar and South Canara districts of the Madras Presidency, with the possible exception of a few places in Bombay Presidency (Hubli, Betgari, Dharwar etc.). A detailed report on the activities and areas wherever the mission concentrated is available in the *Annual Reports of Basel Mission (RBM)* for various years; and also see, Peter Wilson Prabhakar, *The Basel Mission in South Canara (18034-1947)*, Unpublished PhD Dissertation submitted to Mangalore University, Mangalore, June 1988; Reports on the activities of the Basel Mission are available in the library of the Karnataka Theological College, Mangalore.

[155] In 1839, Dr.Hermen Gundert, a prominent Basel Missionary established a primary school at Nettoor in Tallicherry. Various subjects like Geography, Malayalam, and English along with Bible were taught here. Another school was established by the mission at Kallai near Calicut in the year 1848. There was no caste barriers to get admission in these schools started by the Basel Mission.

Middle School in 1872, and later it was upgraded as a High School in 1878. In 1907, it became a second grade college. It is interesting to note that the majority of students attended these schools were from Ezhava community.[156] In the middle of the 19th century many of these schools became affiliated colleges under Madras University. Students from the Ezhava community were even sent to Madras for higher studies.

The majority of candidates who passed the matriculation exam were from the Ezhava community. Unlike in Travancore, caste was not a criterion for the government service in Malabar. Those attained higher studies went for government jobs. It resulted in the economic growth of the lower castes, particularly the Ezhavas in Malabar.

Nevertheless, the numbers of educational institutions were comparatively less in Malabar. This was because of many reasons. Firstly, Malabar as a district was directly ruled by the British as a district under the Madras presidency. Therefore, any particular concern for the progress of the area was lacking. Absence of any princely rulers to negotiate with the colonial authority and bring forth development in their own province was absent in Malabar. And therefore, compared to Travancore and Cochin, the number of educational institutions was fewer in Malabar.

Impact of western education: colonial modernity as alternative modernity

As expected, the English education had changed the taste of the educated people. They longed for everything western — house, food, dress, manners, luxuries, professions, family organization etc. Western institutions really fascinated them. As Panikkar points out that "the modern Indian intelligentsia who emerged out of the colonial conditions responded to the newly situation in a variety of ways. Initially the tendency was to look inward, to gauge the reasons for the cultural and intellectual loss which the Indian Society had suffered and to chart out a course of reform and regeneration"[157].

[156] K K N Kurup, op.cit., p.23.

[157] K N Panikkar, op.cit., p.11.

English education became a powerful instrument in increasing the number of those who learnt to think independently. Panikkar further says that the renaissance and enlightenment that ensued as a result had multiple sources of influence. It occurred in the context of colonial presence which enabled the intelligentsia to draw upon Western liberal ideas and to critique the indigenous social, cultural, and intellectual practices on the basis of rational and humanistic criteria.[158] They were animated by a new faith in their own individual abilities and found satisfaction in achievements made by their own efforts[159].

The impact of Western education was intensely felt by the Hindu communities. The high castes, (particularly the Brahmins and Nair categories) the custodians of religions and dharma, gradually realized the need for change and were forced to adjust themselves to the new-socio-economic condition. The Hindu social order based on caste-system yielded to pressure. The low caste Hindus demanded equality of opportunity and status with others. The Muslims and Christians also felt the need for change and the spread of education excited in them a new ambition that of enjoying and increasing power hitherto denied to them. It seems that a clash was inevitable between the two different groups, one that monopolized power and the other that wanted to share the power. This eminent conflict in society drove colonial authorities and their dependents, the Maharaja of Travancore to look for loyalists. English language actually had facilitated the consolidation of national opinion and the free exchange of ideas. As a result, the great treasures of the West were opened to the people of this country, which undoubtedly-accelerated the intellectual growth and cultural development. It encouraged men to freely express their views on political activities and ideals.

The Government initiative to encourage English education was probably motivated by expectations of direct economic advantage. They expected that it might raise the general social standard of the people and enhance their efficiency. It may also multiply wants and creates the need for additional social amenities which in turn increased the demand for alien goods and services.[160]

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158 Ibid., p.11.

159 But the sources which shaped their concerns were not exclusively Western. The traditional influences had an equally important presence.

160 Lawrence Lopez, *A Social History of Modern Kerala*, p.3.

Educated men realized the benefits of united action and took the lead in the agitation for the redress of popular grievances. The new middle class, which was mainly the creation of alien rule, derived many benefits as a result of English education. They demanded equality, social justice and democratic institutions. The middle class became the predominant element in the society at least in Travancore and Cochin states. English education created severe competition for better social and economic opportunities among different groups within the middle class.

It was in this background that social reform movements aimed at the modernization of Kerala society and efforts to that aim were started from the latter half of the nineteenth century onwards. It was among the Ezhavas, the relatively advanced caste among the a*varnas*, that the social reform movements started in right earnest. The lower castes constituted nearly fifty percent of the total population of Travancore in 1875. Even though a Royal proclamation was issued in 1837 granting all men free access to public places, it remained a proclamation only. However, the implementation of land reforms and the subsequent prosperity of the state provided some economic independence to the lower strata in the caste hierarchy.[161]

Meanwhile with the establishment of missionary activities in Southern Travancore access to education and healthcare became a reality for the lower castes living in that area. The LMS through their activities in education and health began large scale conversion of the lower castes to Christianity. In the first half of the 19th century, 'agrestic slavery' was widespread in all regions of Kerala and conversion to Christianity not only provided an escape route but also a possibility for social and economic upliftment. From the 1850's, there also began a conscious development of health care activities by the Christian Missions. The close association of the lower castes with the missionaries instilled in them a sense of self confidence and made them aware of their social deprivation. Those who came out from the missionary schools found their caste status a major obstacle to their material and social advancement.

Thus, Dr. Palpu, one among the pioneers of the intellectuals, took an active role in securing the redress of the grievances of the Ezhavas and other lower castes. He was a medical practitioner. His book namely *The Treatment of Thiyyas in*

[161] M Kabir, T N Krishnan, op.cit., p.14.

Travancore (Registered in 1903, June 1) made a deep influence among the educated people from different communities. Sree Narayana Guru was at the apex, who campaigned for the mitigation of the castes. He advised the Ezhavas to give up many of the traditional customs and rituals. Besides constructing temples, Guru took a keen interest in establishing schools in the premises of temples.

In 1917, he called his community to build up 'Vidyalayas' by collecting money from masses. Several libraries and reading rooms were set up along with many of the 'Patasalas.' Ezhavas were inspired by the writings and teachings of Sree Narayana Guru. Guru was fully aware of the importance of education not only for economic advancement, but also for changing the social and behavioral attitudes towards health and hygiene. In an address to the Pulayas, he made it clear that 'men are of one caste'. There is no caste among them except the ups and downs in position. Some may be exceeding in wealth, education and hygiene; others may be short of them. There is no caste difference among men except those differences. The Pulayas are in dire need of wealth and education. These two have to be acquired. The most important is education. If that is gained, wealth and hygiene will follow.

This statement of Sree Narayana Guru quintessentially represented not only the relationship between society, education and health but also contained the seeds of the strategy for the development of the lower castes in Kerala. The Ezhava community began to raise funds from within their own community to establish schools and colleges and as a result, now occupies a prominent position in Kerala. It was not only the Ezhavas who began to organize and agitate for access to education, health and public service, but also the Pulayas, a community of the erstwhile agrestic slave castes[162].

The following were the first explosive events which set out transforming the people of the state from their state of being as bodies, the movements of which were limited by the ritualistic dispositions of caste and joint family, to human individuals endowed with the power of will and self-consciousness.[163]

The consecration for the temple in Aruvipuram by Sree Narayana Guru in 1888, the publication of the novel *Indulekha* written by O. Chandumenon in 1889, the

[162] Ibid., p.14.

[163] B Rajeevan,op.cit.,p.24

presentation of the *Marumakkathaya Marriage Bill* by Sir. C. Sankaran Nair in 1890 and the *Malayali Memorial* in 1891 — the temporal closeness and sequences of these events occurring just before the onset of the twentieth century were not accidental. They were nothing but the specific manifestations of definite historical processes. Thus the renaissance and modernization in the state was a historical process of subversion of the structure of the old world into which different specific streams, the one which manifested in the form of *Sree Narayana* movement was the most significant. Because this was a movement which acted as an external force in toppling down the structural deployment of the caste system based upon the feudal relations.

After *Sree Narayana Dharma Paripalana Yogam* (SNDP), the caste reform movement of the Ezhavas under the leadership of Dr. Palpu was launched in 1903, drawing inspiration from this model; all lower and upper castes began to organize themselves to fight against social inequalities, and bad customs and superstitions along with blind belief prevalent among the upper castes.

The change in the material basis of society affected the institutions, customs and attitudes of the people. The economic forces generated during the British occupation and the new education system drastically changed the caste system. Modern education became a powerful instrument for fostering unity. It also liberated the low castes from traditionalism. The social revolution through which Kerala obtained her emancipation was remarkable.[164]

A remarkable social consequence of colonial rule was the progressive increase in the number of those who learnt to think or exercise reason. Education became a necessary and powerful instrument for individual development. But the colonial government introduced English education to shape the society in a particular mould, and to inculcate in the new generation loyalties and attitudes to suit their interests. It was an effective means to control the people. Emphasis was on moral and civilizing missions. The imperial motive was to promote colonial capital by creating a docile work force who would also become consumers within colonial capitalism. These were the objects of the planned education policy of the colonial British Government.

[164] S. Ramachnadran Nair, op.cit., p.133.

In the colonial period, English education was recognized as an assured means of livelihood. It was decreed that "The state shall defray the entire cost of education of its people in order that there may be no backwardness in the spread of enlightenment among them, that by diffusion of education they might become better subjects and public servants and that the reputation of the state may be advanced thereby."[165]

The rural pattern of culture was undermined by the migration of the educated to towns and cities. The culture of the literate was treated as superior or dominant while that of illiterate as inferior. The newly emerged middle class in Kerala which was the creation of the colonial British rule had a pretension that they were free from tradition and caste prejudices and that they adhered to the ideas of progress, science, reason and democracy. Like the earlier landed aristocracy, they also despised physical work or land labor. However, they loved a leisurely and luxurious life. They were often dissatisfied with their present condition in society and politics and longed for everything new. They have no consideration for the economically weaker sections. The outlook of the individual on fellow human beings changed drastically. Individuals became greedy and self-centered. "Humanism suffered a blow under colonialism and as a result had bequeathed complex problems to the post-colonial society. But the middle class always remained as the link between tradition and modernity."[166]

Thus, the so called social transformation and the modernization in the state had its beginning under a colonial milieu. But the modern culture as it was claimed, disseminated here was not the genuine modern western culture, but a colonial variety, manufactured and marketed for the use of colonies.[167] When colonialism used modern

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[165] The Royal Proclamation of 1817, as quoted in the *Census of Travancore*, 1817, Government of Travancore, Trivandrum.

[166] S. Ramachandran Nair, op.cit., p.140.

[167] K N Panikkar discusses, while dealing with the theme 'Indian Renaissance and Modernity', how colonial modernity was moulded in the form of an alternative modernity in Colonial India. He says that modernity in India had a different trajectory. Its origin was not in indigenous intellectual and cultural churning but in the influences disseminated by the colonial State and its agencies. The consumers and propagators of this modernity were the newly emerged middle class linked with the colonial administration and thus exposed to western culture. They were drawn towards a new cultural situation through their association with the colonial rulers as trading intermediaries and subordinates in the administration. He further says that such a situation although first developed in the presidency towns, it later on led to the emergence of a new breed of Indians who idealized the West, adopted a Western-modern way of life and subjected tradition too critical enquiry. The relationship between the traditional and the "colonial-modern" was not dialogical but mainly one of domination. Restricted by prevailing caste and religious practices and attracted by the "colonial-modern" life, this new breed of Indians experienced the tension between what was possible in the

education as a weapon to disseminate their 'special culture' by degrading indigenous traditionalism, it could gain a hegemony on the colonized. Migrations from villages to the towns took place.

Those who migrated to towns wanted to lead a leisurely life. Their outlook began to change. Knowledge in English became a symbol of pride and this made them imitate the western culture. When educated people increased among all the communities, it ultimately built a base for a new life style as distinct from the old one. They longed for white collar jobs, better status, higher social position etc. Naturally, their health care concept also began to change. Hygiene and sanitation became predominant elements of their health care concept. The exposure to Western and traditional values, however, did not lead to a critical attempt to marry traditional values and beliefs with modernity. Leisurely life and new employment created much more health problems.

It was in such a context that the imposing nature of 'modern' medical system appeared. Therefore, it was natural that the heterogeneous traditional medicine in Pre-modern Kerala appeared to be superstitious and primitive to the colonists whose concept of disease and remedial strategies belonged to the western epistemic order.[168]

They constituted their medical domain under modern science which distinguished itself from traditional shamanistic practices branded as superstitious in absolute terms. Thus, the colonial subjects accepted the western understanding of traditional medicine as the truth. The colonists spoke through the colonial version of the native perception on the causes of diseases. To the colonists, it indicated the uncivilized nature of the natives who needed to be civilized.

Available information show that European writers from a very early period itself used to illustrate the life style of the natives as one different from their own. The colonialists were consumers of the faith that some ground work was to be done in the creation of a space and only in such a space could the colonial mode of medical discourse find legitimacy. This indicates that here modern medical practice is introduced into a space that was created out of redefining indigenous practices in the

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new world and what was practiced in the traditional. K N Panikkar, *Was There Renaissance*? , URL:http//www.flonnet.com.p.3.

[168] Benny Varghese, op.cit., p.43.

idiom of western discourse on medicine. It was this redefinition that represented and thereby constituted the eclectic of traditional medicine in pre-modern Kerala as superstitious, traditional, outdated etc.[169]

In Travancore, education of the lower castes along with other economic changes attended the social environment itself whereby the attitudes of the lower castes began to change towards access to health care systems, education and public employment.[170] In the early stages of the transformation of health practices, the main concern was with changing the attitudes and behavior of the upper castes and classes towards modern or Western medicine. Later, the demand for access to this new health care by the lower castes and classes began to assume some importance by the last decades of the 19th century. It mainly happened because of the changes in the social environment among the lower castes due to colonial modern education which made them long for modern health care system as it was claimed a necessity for their well-being in an advanced society, free from caste or class rigidity. Therefore, in the place of the indigenous system, as a response to the pressures within the limits allowed by the caste and power structure, the colonial health care practices had to get domination.

Colonialism, being a product of European culture, though not genuinely western, could successfully implement its culture through various means and ways. In the process of domination, perhaps education played the most significant and decisive role. The school as an institution where the power relations, activities and system of communication converged was a site where the people as colonial citizens were moulded.

Conclusion

The socio-cultural milieu of Kerala had in many ways contributed for the growth of Western medicine in the State particularly in the 18th and 19th centuries. The missionaries contributed immensely for the success of the dissemination of Western medicine in the state. Particularly, the social change created by the lower castes was a necessary factor for the success of public health and Western medicine in the State. Students from the lower castes, particularly from the Ezhavas were given an opportunity in gaining training in medicine and after their training, (students were

[169] Ibid., p.52.

[170] M Kabir, T N Krishnan, op.cit., p.5.

even sent to Madras Medical College for training) they were given appointments in the Medical Departments of Travancore and Cochin during that period.

Among those who had got the opportunity of completing a course in medicine, Dr.Palpu[171] was a unique person, who hailed from the Ezhava community, and was later influenced by the activities and ideals of Sree Narayana Guru. Dr.Palpu later involved voluntarily in the reform movements among the Ezhava community which later revolutionized the social sector of the lower castes particularly of the Ezhavas in Kerala. Dr.Palpu is indicative and a proof of the emancipation of the lower castes people.

The Missionaries who arrived in Travancore could break the existing caste hierarchy as they began to interfere in the day today life of the lower castes while delivering western medical care to the people. Though proselytization was the main agenda of the missionaries, they encompassed all the downtrodden sections of the society for their social and economic up growth. Thus, the lower castes flocked in to the arms of the missionaries and thousands converted to Christianity.

The emancipation of the lower castes brought several change in the society. The lower caste women began to wear upper clothes. The higher castes like Brahmins and Nairs reacted very angrily towards the process of conversion. However, the Travancore government did not go for a clash with the missionaries.

In the 1860's, the ruling Rajas of Travancore and the Dewans were more enthusiastic in bringing reforms in all sectors. As mentioned earlier the number of schools to impart vernacular as well as English education increased. Grant-in-aid

[171] Dr. Palpu (1863-1950) was born in a lower section of the society in Petta, near Trivandrum as the son of Thachakkudi Veetil Bagavathi Padmanabhan and Maathamma Perumal. Completing his primary education from a vernacular school in 1875, he studied English language from a private school run by a missionary in Travancore. After three years of study he joined in the Boys' High school and completed his matriculation. He later joined in the Maharajas College i.e. the present University College, Trivandrum. After this, he was attracted to the medical profession. As Western medicine was getting momentum in Travancore, he applied for the post of an apothecary, but unfortunately he could not get the job as he belonged to a lower caste. This prompted him to study medicine further and he joined Madras Medical College and completed the LMS (License in Medical Service) course in Madras Medical College. After completing his course he wanted to come back to join in the Travancore Medical Department, but this was denied to him because of his caste. Later Dr. Palpu went to the Princely State of Mysore and joined there in the Vaccine Department. It was a turning point in his career as he reached higher positions later. P Govinda Pillai, *Kerala Navothaanam :Yuga Santhathikal,Yuga Silppikal (*mal.*)*,Chintha publications,Trivandrum,2010,pp.66-67

system was introduced by the government in education and medical care to ally with the private agencies in the process of the dissemination of both education and health care to the public.

Along with educational institutions, a number of hospitals of both government as well as missionaries were opened in different parts of the state to deliver European medical care to the people. Vaccination against smallpox was yet another site where the lower caste got opportunities to involve with the help of the medical missions. Although it was initially introduced to protect the members of the ruling family from the ravages of smallpox, later with the coming of the missionaries in this field, it extended to the lower sections of the societies too. Hence, the grant-in-aid system could be viewed as a strategy of the government to bypass the castiest opposition in providing medical care to the whole sections of the society.

Through the grant-in-aid system, the Travancore Government was liable to contribute a fixed amount for the functioning of the medical institutions run by the private agencies, particularly of the missionaries. Moreover, the state was aiming at establishing their control over the process of proselytization activities in the medical institutions as it had in the missionary educational institutions. It was actually this grant in aid system that saved the private agencies in the state. For instance, for the completion of the construction of a Hospital at Neyyoor under the auspicious of the London Missionary Society, the Travancore government had provided a grant of Rs.20,000 during that period.

Therefore, it can be said that Western medicine was introduced in such a context were social tension was at the apex in Travancore. However, it was the lower classes of the society who ultimately popularized Western medicine. Had there not been the activities of the missionaries, then the situation would not have been so much favorable for an alien medical system to dominate. The Travancore state's modernizing vision along with due patronage accelerated the process of institutionalization of Western medicine in the State.

CHAPTER 2

The Smallpox Encounter: advent of Western medicine as preventive medicine in Colonial Travancore

Travancore is situated in the south west extremity of the Indian peninsula. With an area of 7265 square miles (its extreme width from north to south being 174 miles, and its extreme width 75 miles from east to the west),with the Western Ghats isolating it from British India on the east and conferring on it a distinctive culture and civilisation ; this renders a charming visibility to the population. Travancore was the third largest among the princely stats in India indirectly ruled by the British paramountcy. It was flanked by the Arabian Sea on the West and by the Indian Ocean on the South.

During the 1800s, Travancore developed and consciously cultivated a reputation as a 'progressive' princely state, as did others such as Mysore.[172] It is generally agreed that Travancore was much advanced in many fields such as education, literacy, and sanitation etc. Travancore in the 1860s and 70s, for instance, implemented several reforms in the collection of revenue, the creation of the public works department, industrial regulations, supported several state aided schools and funded Christian Missionaries with grants in aid to both education and public health. Female education was one of the important factors in the state. It was the vigorous attempts of the ruling Rajas, aided by the consciousness created by the British Residents, that introduced Western medicine in the state. It was quiet a coincidence that smallpox vaccination became the medium through which Western medicine entered the state in the form of a prophylactic.

With the commencement of the reign of Her Highness Gouri Lakshmi Bhai in 1811(986 ME) the days of darkness and disorder in Travancore history were over and the sword happily reposed in its sheath. It was during the reign of Her Highness, that the steps were initiated to avail the facility of European Medical aid for the people of Travancore. Thus European medicine was introduced in the form of a prophylactic to

[172] Aparna Nair, *The Indifferent Many and the Hostile Few: An Assessment of Smallpox Vaccination in the 'Model Native State' of Travancore, 1804-1941.* WWW.Academia.edu,p.1

fight the ravages of smallpox in Travancore. In 1813 (988 M E), anxious to mitigate the ravages of small pox, amongst her subjects, introduced in consultation with the then British Resident and Diwan, Col.Munro, a Vaccination Department under the control of Dr.Proven, the then Medical Officer in charge of the Residency. Since then, Travancore witnessed a rapid advancement of Western medicine in this princely state, and by the end of the 19th Century, it became a dominant system of medicine in the state.

Historiography

The advent of Western medicine in India has often been viewed as an unattained triumph, yet an ample justification for colonialism.[173] For the Europeans, disease was one of the great problems Europeans had to overcome in securing their mastery of the wider world. Since the Europeans found South Asia as a fertile land to conquer and make settlements, it was necessary for them to fight various diseases. Thus in the nineteenth century, Western medicine responded to a series of challenges, for instance, in the epidemiology of both tropical and temperate regions, and pathology, immunology, and pharmacology, all took a great leap forward.[174] By this, the Europeans had an agenda of making their place safe. Naturally, the health of the indigenous people had also achieved benefits from this alien medical system, gradually and consequently.

A rich historiography began to consider health and medicine as a vehicle for colonial as well as imperial expansion, which highlighted the fact that medicine (Western or European) was an ideology as much as a practice. Many scholars adopted different themes for such a venture. The medical encounter was a widely accepted theme on which abundance of studies have emerged — it mainly includes the confrontation of the indigenous and Western medicine, native resistance, re-organization of indigenous medicine under the influence of colonialism etc.[175] The

[173] For more details on the relationship between Western medicine and imperialism, see, John M. Mackenzie, General Editor's Foreword, in David Arnold (ed.), "Imperial Medicine", op. cit., pp. i - vi.

[174] Ibid., p.vi.

[175] For instance, Deepak Kumar held the view that Western medical discourse occupied an extremely important place in the process of colonization. For him, it functioned in several ways: as an instrument of control which would swing between coercion and persuasion as the exigencies

idea of medicine as a 'tool of empire' began to get momentum through the works of these scholars.[176] This was one among the popular themes on which scholars debated seriously.

Smallpox was one of the fatal diseases that India had to confront with for many centuries. Several million deaths in the late 19th century alone were attributed to its destructive powers.[177] It was one of the scourges of India, one of the most virulent and severe diseases to which the human race is liable; and it was held responsible for more victims than all other diseases combined, outstripping even cholera and plague in its tenacity and malignity. Fatal in a third of all cases, smallpox also resulted in the permanent scarring and disfigurement of many of its survivors.[178] Smallpox occupied a distinctive place in both Indian and British attitude to disease, curing and prevention.[179] One of the most readily identifiable as well as one of the most virulent of India's epidemic diseases, smallpox was widely represented in religious beliefs and rituals, with smallpox deities worshipped throughout virtually the whole of India.

Prevention was the sole method on which both the indigenous as well as Western medicine had to rely on. Inoculation with human pox matter was a method in the indigenous system of medicine against smallpox. But vaccination with cowpox matter was the method of Western medicine all over the world.

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demanded, and as a site for interaction and often resistance. In its former role it served the state and helped ensure complete dominance. Both ways the scope and opportunities for interactions were rather limited. Deepak Kumar, 'Medical Encounters in British India,1820-1920',*Economic and Political Weekly*,Vol.32,No.4 (January 25-31,1997),pp.166-170

176 Danial R. Headrick has listed medicine among the several 'tools of empire' that enabled or facilitated western penetration and domination of the non-European world.

177 David Arnold, "Imperial Medicine", op.cit. , p.45.

178 It was not just the prodigious mortality caused by the disease that made it appear an exceptionally menacing disease: there were also the horrific natures of the disease itself. An acute contagious viral infection, smallpox (variola major) produced an intense, burning fever followed by multiple cutaneous eruptions and pustules which clustered thickest on the face and limbs, but in the most extreme, confluent covered almost every inch of the body's surface. A third or more of those seized by smallpox died, usually within two weeks of the first symptoms of the disease. But those who escaped death were likely to be disfigured or incapacitated for the rest of their lives ---their faces transformed in to pockmarked lunar landscapes, the sight in one or both eyes dimmed or destroyed through ulceration of the cornea. For more details see, David Arnold, "Colonizing the Body, op.cit., p.116; "Imperial Medicine", op.cit., pp.45-46

179 David Arnold, "Imperial Medicine", op.cit., p.46.

When first introduced in India, the British paramountcy had great hopes of using vaccination as a tool to mitigate the smallpox mortality among Indian population, as well as to project the policy as a symbol of the superiority of Western science and medicine. Despite this administrative interest in the policy, the efficacy and range of smallpox vaccination remained limited for most of the 19th century.[180] However, it is an undisputed fact that smallpox prevention was the first initiated venture of the British to introduce Western medicine in India.

Various aspects of smallpox as well as its prevention and cure including vaccination have been dealt in detail by various scholars in India as well as abroad. For instance, David Arnold opines that at a time when the concerns of colonial physicians were narrowly focused on European needs, vaccination represented a rare attempt to carry Western medicine to the people. Indeed it entailed a great degree of state intervention un-paralleled until the anti-plague campaigns of the late 1890s. But despite what the British saw as the indisputable benefits of vaccination, the practice was slow to gain general acceptance. One factor in this was the attitude of the colonial administration itself, especially with regard to carrying the costs entailed.[181] There were practical difficulties to be overcome.

But, in addition, vaccination was faced with the challenge of the arrival of prophylactic practice in inoculation and a rival agency in the indigenous variolators. Through a combination of these factors it took a hundred years for vaccination to become an effective form of prophylaxis in India, and a further seventy years before the dreaded disease was finally eradicated.[182] Partly because smallpox figured so prominently in British and Indian ideas about disease and medicine, smallpox offers valuable insight in to the nature, purposes and impact of colonial medicine in India, and also, by reflection, in to the interventionist capacities and practical limitations of colonial state power in India.[183] Arnold further opines that medical intervention against smallpox in the nineteenth century India was only partly constrained by a lack

[180] Aparna Nair, op.cit., p.3

[181] David Arnold, "Imperial Medicine", op.cit.,p.45.

[182] Ibid., p.46.

[183] Ibid., p.46.

of appropriate epidemiological knowledge and immunization technology. To some extent, the problems vaccination encountered in India mirrored European experience — the reluctance of people to seek vaccination (except during epidemics), the low level of immunity conferred (until the introduction of revaccination and improved vaccine preservation methods), and the difficulty of creating a suitable mass immunization agency.

As far as vaccination was concerned medical monopoly not cultural pluralism, was the desired goal. Finding persuasion, co-option, and the enlistment of leading Indians, inadequate for the purpose, the colonial authorities eventually turned to legislation to ban variolation and hasten public acceptance of vaccination. Further, disposed to see the health of its European subjects and servants as first priority, the colonial state was reluctant to make the financial and administrative commitment necessary for an effective assault on smallpox.

The sheer size and expense of such an undertaking was always a deterrent. Vaccination was welcomed as a demonstration of the superiority of the West over East; science over superstition. A fear of the consequences of the compulsion was thus an important check on the state and on the medical profession's interventionist ambitions.[184] He says that the history of smallpox vaccination in India was expressive of a peculiarly colonial predicament in which the administration was culturally and politically distant from the lives of its subjects.[185]

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[184] David Arnold has come out with a detailed study of smallpox, its occurrence in colonial India, prevention---variolation and vaccination, state intervention etc. He deals in most of his works these issues in a pan-Indian manner. However, he most often has gone for certain sweeping generalizations based on his archival exploration, with regard to smallpox as an epidemic particularly during colonial period. Nevertheless, accepting some of these arguments, one could easily find out that Arnold never considered British India as a conglomeration of many native states as well as some directly ruled British provinces. Instead, he, perhaps, treat all these regions as a unique category without any regional variations either in administrative apparatus or state formation. Hence, it becomes one of the major drawbacks of his studies. For a clear understanding of his views regarding smallpox in British India, see, David Arnold (ed.), "Imperial Medicine",op.cit.; "Colonizing the Body",op.cit. ; *Warm Climates and Western Medicine*; *The New Cambridge History of India: Science Technology and Medicine in Colonial India*, CUP, New Delhi. etc.

[185] In such a context, he never looked in to the Princely states like Travancore and Mysore, for instance, where the ruling Rajas had some consideration over the welfare of their subjects. In Travancore, the advent of vaccination should necessarily be dealt with the state patronage, which of course, had a different agenda, rather than aiding the British paramountcy.

The case of smallpox prevention and control in the nineteenth and twentieth century has, for instance, been used to support numerous generalizations: some scholars have argued that it was representative of how Western medicine in India was an effective tool of empire, as mentioned earlier, selectively benefiting the British and their indigenous allies. They generally argue that medicine was a tool in the hands of the British paramountcy to aid colonization in different parts of the world. Other group of scholars consider that smallpox vaccination was intended to 'mark Indians', to draw information about them and thereby help control Indian society during the consolidation of colonial power in India.[186]

Thus governance of the body became one of the agenda of the Europeans to aid colonization. They also tend to maintain that these vaccination regimes represented an effort to impose the supremacy of scientific medical traditions. It has also been argued that this imposition was able to win over certain sections of sub continental society while being resisted by others for a host of specifically 'Indian' cultural concerns, and that this resistance limited the state's interventionist ambitions.

Other studies have explored smallpox control efforts, have made use of previously neglected archival materials and have come out with various interpretations on the theme. However, so far there have been neither any studies nor any exploration regarding the patronage given for Western medicine, by the princely states and their agenda of building a 'progressive' state.

The present chapter, therefore, explores how epidemic diseases, particularly smallpox became a medium through which Western medicine made an advent in to the native state of Travancore. This study also analyzes whether vaccination against

[186] Inspection, segregation, vaccination and hospitalization dramatized both the general process of the elaboration of the state's concern with the governance of Indians and its colonial nature. On the one hand, the urgent need to combat epidemics mobilized and brought in to play a range of knowledge and techniques—sanitary laws and tactics, studies of diseases and strategies of control based on statistics, vaccination ,quarantine, hospitalization, municipal government—that had been developing in a variety of locations over several decades. The epidemic victims in hospitals and clinics furnished details on the pathology and treatment of diseases, and these were combined with sanitary laws and statistical facts to render the body as an organism, as constellation of functions, designations and symptoms, ailments, immunities, vulnerabilities, and therapies. On the other hand, epidemics were flashpoint for the confrontation entailed in tearing colonized bodies away from native habits and habitation, and materializing them in disciplines and technologies of colonial governance…Gyan Prakash, *Another Reason: Science and the Imagination of Modern India*, OUP, 1999, New Delhi, PP.139-41; also, David Arnold, "Colonizing the Body", op.cit.; "Warm Climates and Western Medicine", op.cit.

smallpox aided the process of institutionalization of Western medicine in colonial Travancore, as a part of colonization. It also covers various aspects regarding smallpox as a contagion, its historical background, indigenous and popular beliefs, government response policies etc.

Smallpox Vaccination in Colonial Travancore.

Smallpox had always plagued the population of densely populated South-Western India.[187] This disease was frequently identified in the early administration reports as well as other colonial reports as one of the main causes of death in Travancore and neighboring Cochin.[188] In addition, several beliefs and practices support the conclusion that smallpox has had a long presence in Travancore. These included the conviction among the Travancore's Catholics that St. Sebastian guarded them against the disease and the Hindu belief that smallpox was, variously, the manifestation of *Kali, Mariamma, Bhagavati, Vasoorimala, Shitala*, etc.[189]

Before the discovery of the cowpox vaccine, invented by Jenner, variolous matter — known as variolation was the most widespread preventive against the disease.[190] There are various descriptions in the indigenous system of medicine regarding the nature of smallpox and its treatment. Ayurveda provides exhaustive

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187 Aparna Nair, op.cit.,p.3; Ralph W Nicholas is of the opinion that by the 7th Century, smallpox had become so widespread in India that it demanded careful attention from experts dealing with medicine. In the same century it was established in countries around the Mediterranean. Ralph W Nicholas, 'The Goddess Sitala and epidemic Smallpox in Bengal', *The Journal of Asian Studies*, Vol.XLI, No.1, November 1981, pp.21-44.

188 Earlier references, even before the colonial period, are available on the prevalence of smallpox in southern India. In the medieval period the earliest references are available from the 12th Century. For instance, Al-Beruni (A D 1030) refers to smallpox. He interestingly noted that "The Hindus who are the neighbors of those region (of Lanka; present Sri Lanka) believe that smallpox is a wind blowing from the Island of Lanka towards the continent to carry off souls. According to one report, some men warn people beforehand of the blowing of this wind and can exactly tell at what times it will reach the different parts of the country. Ishrat Alam, 'Smallpox and its treatment in Pre-modern India', in Deepak Kumar (ed.), *Disease and Medicine in India*, op.cit., pp.85-86.

189 These are various representations of the Hindu Goddesses as the cause for the occurrence of smallpox not only in Travancore but other areas of modern Kerala. This goddess is known in different names in various provinces. For instance *Shitala Mata* is the one form prevalent in colonial Bengal; *Mariamma is* widely prevalent in Malabar.

190 Niels Brimnes, 'Variolation, Vaccination and Popular Resistance in Early Colonial South India', *Medical History*, 2004, p. 199.

descriptions of smallpox and smallpox-like diseases and has recommended certain treatments.[191]

The Dewan of Travancore was one of the first 'local potentates' to submit to the 'great novelty' of vaccination in 1804.[192] Apart from introducing vaccination to the ruling personnel, the English East India Company had also been vaccinating European and Indian Army regiments (and camp followers) stationed in areas like Quilon and others by 1807. There was also an attempt from the company to introduce it in Malabar district in 1802, but unfortunately this attempt failed due to many reasons.

Despite the British eagerness to introduce Vaccination in Travancore, there was little diffusion of vaccination beyond the court.[193] Even among the members of the Royal family, vaccination had not even acquired much popularity until 1811, when a young princess died of smallpox. Hence, widespread occurrence of smallpox and continuous pressure from Col. Munro[194] (Resident and Dewan of Travancore) forced Her Highness to start a small pox unit with a resident doctor.

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191 Aparna Nair, op. cit., p.3.

192 Ibid., p.3.

193 The arrival of vaccination marked a new and critical stage in the development of Western medicine in India. Hitherto, European practitioners had confined themselves almost exclusively to ministering to the needs of their own community and to the British and Indian soldiers employed by the East India Company. Not only had there been no serious attempt to take medicine to the masses but there existed a profound ignorance about the diseases prevalent in India and the state of the health of the bulk of population. Vaccination was introduced in to India at a momentous time. As a result of the rapid expansion of British dominion in South Asia, India's new rulers were beginning to appreciate a need for a more detailed knowledge of the society and country over which they governed. This included greater knowledge of the causes of mortality and the nature of India's disease environment, factors likely to have a direct bearing on the economic life and even the political security of the new regime. At a time when Western medicine could offer few cures or prophylactics, smallpox stood almost alone as a 'preventable disease'…David Arnold, "Imperial Medicine", op.cit., p.52.

194 Colonel John Munro was appointed as the Resident of British Government in Travancore in 1810, and he continued up till 1819. Munro had the distinction of being the most loved and venerated of the British Resident in Travancore. The reason for that love and veneration lies in his reformist policies and humanitarian activities in a period of great political and social tension. He dominated the affairs of Travancore from 1810 to 1819.For more details see Dr. R. N Yesudas, *Colonel John Munro in Travancore*, Kerala Historical Society, Trivandrum 1977, pp.7-12.

In connection with this venture, Munro reported to the Madras Government that "*I wrote to Her Highness earnestly requesting that she would allow herself to be vaccinated, and I sent a medical gentleman to Thiruvananthapuram for the purpose of performing the operation. The Rani replied as she formerly had the small pox, it was unnecessary to vaccinate her; if however I initiated upon her undergoing the operation, she would submit it on my return to Thiruvananthapuram, and in the meantime the doctor might vaccinate her husband, the two young Tamburattis(Princesses) and some other persons of her family. These persons were duly vaccinated. When I called Rani's attention to this subject, she again affirmed that she had the small pox and requested me to make enquiries to ascertain the fact. I have made enquiries and have reason to believe that the Rani had the smallpox*" [195]

Thus widespread occurrence of smallpox and continuous pressure from the Resident induced her highness to start a smallpox vaccination unit with a resident doctor. The procedure was successful and it protected the Royal family from the ravages of smallpox. It was in 1814 that the Queen Regent made smallpox vaccination compulsory for the members of the court. Thus a new vaccination department was established in 1813 under the auspicious of the Rani and the Resident. The Durbar Physician Dr. Proven was given the charge of this department. Apparently, this was a tough task for Dr. Proven to accomplish. He had many responsibilities like suggesting treatment to the Regent and other members of the Royal Family, members of the prison and military barrack maintained by the British in the native state. Besides the regular vaccination establishment, vaccinations were performed by the medical officers in charge of the various institutions of the state and the Conservancy overseers too were trained for it.[196]

Dr. Proven was succeeded by Dr. Brown as the palace doctor. By about 1817, Dr. Brown had started supervising smallpox inoculation among the court members and in some taluks and other streets outside Trivandrum city.[197] Operating vaccination outside the capital was really a heavy task mainly due to the apathy of the native

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[195] V Nagam Aiya, *The Travancore State Manual*, Vol.III,Gazetteers Department, Government of Kerala,Trivndrum,1999, p.381.

[196] Ibid., p.525.

[197] Aparna Nair, op.cit., p.3.

people towards vaccination. However, the British Resident ensured that surgeon Brown would be provided with a separate allowance from the state for his vaccination duties.[198]

After 1850, there was a major shift in the vaccination policies adopted by the state. The rulers' attitude towards vaccination changed and vaccination was more actively embraced by the other rulers of Travancore in the successive years. This venture was further aided by the support of the British Resident, whose main aim was to protect people from the ravages of smallpox.

Thus in 1865, instead of appointing a Head Vaccinator and other sub vaccinators by the Durbar physician, a separate Vaccination department was formed. Dr. Pulney Andy, a native of Madras, who was trained in Western medicine in Europe, was appointed as the superintendent of Vaccination in Travancore.[199] Dr. Pulney Andy was previously employed in the Madras Vaccination Department. His directive in Travancore was to disseminate the benefits of Western medicine in general and vaccination in particular.[200] Thus an alien system of medicine introduced in the princely state, and the ruling Rajas became its great patrons. Western medicine thus made an advent in the princely state as preventive medicine.

On the occasion of the opening of the Trivandrum Civil Hospital, his highness spoke "*it will be the duty of Dr.Pulney Andy to travel in to the interior to supervise the several medical subordinates who are employed there, and to spread the benefits of medical aid in general, and of vaccination in particular….I hope I am not too sanguine in expecting to see before many years elapse, if not the total disappearance, the considerable diminution of the scourge of smallpox in this country. It has been repeatedly proved that this is a thoroughly preventable disease. I take this opportunity earnestly to impress this fact on the minds of my entire native subject, and to urge them to seek for themselves, for their children, for their friends, and for their servants,*

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198 Ibid.,p.4; For more than 50 years after vaccination was first introduced, all such operations in the state continued to be the direct responsibility of the Durbar Physician in Trivandrum, who oversaw the works of the head vaccinator and the few travelling vaccinators working under him. One of the important facts was that the Travancore Vaccination establishment would always remain administered by and funded by the Native State itself, and not by the British.

199 V Nagam Aiya, Vol. II, op.cit., p.525.

200 Aparna Nair, op.cit., p.4.

the great protection of vaccination. They will see the strength of my conviction in the fact that there is no member of my own family that has not had this protection conferred at an early age." [201]

This speech further indicates that the state had an agenda of gradually popularizing western medical aid throughout the country by patronizing it in all ways. Thus the state had inaugurated a transit from preventive medicine to curative practices, so as to ensure better health for the subjects.

The superintendent, besides directing vaccinators and inspecting their work, also had to inspect the outstation hospitals to treat such as might come his way and suggest measures for improving the sanitary condition of the places he visited. In the succeeding years, the vaccination department was further strengthened. In 1868-69 eight additional vaccinators were appointed, thus making the total number 35, which was not further increased for about 20 years.[202] Travelling vaccinators had taken up the venture to popularize 'arm to arm vaccination'.[203] The vaccinators occasionally conducted the vaccinations in public places such as markets, but they also moved

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[201] TAR for the year 1865-66, Governmnt of Travancore,Trivandrum,p.81.

[202] V Nagam Aiya, Vol. II, op.cit., p.525.

[203] According to Niels Brimnes three 'models' of smallpox prevention interacted in early colonial south India: Indian Variolation, British Variolation, and early Vaccination. As J Z Holwell describes, three operations was conducted by a specific group of itinerant Brahman inoculators. Up to a month before variolation the 'patients' were prepared through a diet that excluded fish, milk and ghee. The Brahmans preferred to variolated males in the arm and females in the shoulder, and the operation itself was described as follows:

> The operator takes a piece of cloth in his hand…and with it gives a dry friction on the part intended for inoculation, for the space of eight or ten minutes; then with a small instrument he wounds by many slight touches, about the compass of a silver groat, just making the smallest appearance of blood. Then opening a linen double rag,(which he always keeps in a cloth round his waist,)he takes from thence a small pledget of cotton charged with the variolous matter, which he moistens with two or three drops of the Ganges water(in the case of North India),and applies it to the wound, fixing it on a slight bandage, and ordering it to remain on for six hours without being moved then the bandage to be taken off, and the pledget to remain until it fails off itself.
>
> The most important measure taken after the operation were to pour cold water over the head of the inoculated person until the fever came on and to ensure that an offering was made to the deity of smallpox…Indigenous variolation was absent in the Madras presidency and other parts of south India. So we can assume that variolation performed under colonial auspices until the advent of vaccination resembled the practice of variolation as it had evolved in Britain, at least as much as it resembled that of India. According to Brimnes British variolation was predominantly an arm-to arm technique…Niels Brihmnes, op.cit., ; For a detailed interpretation of the text composed by J Z Holwell, see, Harish Naraindas, 'Of Therapeutic and Prophylactic: the exigencies of an 18th Century Tract', in Deepak Kumar (ed.), "Diseases and Medicine", op. cit., pp.94-119.

from house to house, offering their services to those individuals who were willing to undergo the operation.[204] The strength of the vaccine department was further increased in 1891-92 and other three succeeding years. By 1895 there were 64 vaccinators in total including six female vaccinators.[205] This indicates that Travancore was always keen to encourage Western medicine-particularly vaccination for smallpox in the State. By doing so, the State had an agenda of popularizing Western medicine with due patronage during that period. Any prejudices and barriers to such an attempt were overcome by adopting favorable administrative measures.

Hence, the entire vaccination department was transferred to the control of the sanitary commissioner in 1896 by increasing the strength of the establishment to 81, among which eight were female vaccinators. The following table illustrates the structure of the vaccination department during this particular period.

Head Vaccinator	**1**
1st class Vaccinator	**4**
2nd class Vaccinator	**9**
3rd class Vaccinator	**12**
4th class Vaccinator	**27**
4th class Vaccinators(temporary)	**15**
5th class Vaccinators	**7**
Paid Volunteer	**1**

[204] TAR for the year 1896-1898, Government of Travancore, Trivandrum, p.142.

[205] V Nagam Aiya, Vol. II, op.cit.,p..525.

Supernumerary Vaccinators	**5**
Total Vaccinators	**81**

Table.1.***Vaccination department of Travancore 1896***[206]

Until 1890, the only vaccination inspection in Travancore was undertaken either by the vaccinators themselves or by the superintendent of vaccination. Two additional inspectors for vaccination were appointed to improve the programme further.

A major shift occurred in the vaccination department during 1895-96. In 1895, the superintendent of vaccination was transferred to the Medical Department and the office of the vaccination inspectors ceased to exist, the four District Sanitary Officers and the Taluk Sanitary Officers taking their place. By doing this, the main aim of the Travancore Government was to strengthen vaccination and make it efficient and make it reach to all sections of her population. As a part of it, in addition to the regular vaccination establishment, vaccinations were performed by the Medical Officers in charge of the various institutions of the State and the conservancy overseers too have been trained. The sanitary department also involved medical officers and conservancy overseers in vaccination, but these medical officers would frequently be accused of not having much interest in performing vaccination[207].

A Vaccine Depot constructed in 1888/89 had reduced the social barriers to vaccination. The depot began to produce Calf Lymph vaccinations to replace hand to hand vaccination which was not compatible with the pollution rites of higher caste individuals. The use of Calf vaccine was also meant to dispel the view that hand to hand vaccination led to the original disease.

It is apparent that the population mistook vaccination for inoculation although the government had never introduced it. Towards the end of the 19th century, however, a British brigade-surgeon had seen Ayurvedic physicians doing inoculation

[206] For more details see, TAR for the year 1890-1900, Government of Travancore, Trivandrum.

[207] Aparna Nair, op.cit.,p.5.

in India. Since there were numerous prestigious Ayurvedic families in Travancore, it is likely that they undertook inoculations and that the population mistook hand to hand vaccination when it was introduced for this indigenous painful practice. The inoculation of Calf Lymph and the increased number of vaccinators, on the other hand, enhanced the progress of vaccination. In the early 20th century, Travancore was divided geographically in to vaccination ranges. Furthermore, unlike the rest of India where vaccination was conducted in specific gathering places, here domiciliary vaccination was adopted.

This measure was necessary since Travancore lacked defined villages, instead, only had widely distributed homes. This programme was probably more effective than India's but it did not ensure success. A medical officer pointed out in 1931: "*In the rural areas, the houses are far apart and the arrival of the vaccinator in one house is the signal for a stampede of babies and mothers in to fields and gardens, and it takes time before they can be brought back."*[208] From the beginning of the 20th century until the arrival of the Rockefeller foundation in 1927, the sanitary department intensified its vaccination and sanitation activities.

In 1871, smallpox out broke in a severe form throughout the princely state which tolled thousands to death. Nagam Aiya, the author of *The Travancore State Manual*, says that the benefits of vaccination had not yet begun to be understood by the people, and also talks against placing smallpox patients under regular medical treatment, and the solid indifference in the matter of tending them during the course of the disease and feels that the actual loss of life must have indeed been very considerable in past ages.[209] Perhaps this is a sweeping argument by the author and this merely imposes the responsibility on people because of either their ignorance or unawareness.

Mark Harrison states that the main cause of such a situation was not the ignorance of the people; he states that the vaccine establishments simply had not sufficient resources to reach many of the infants who required vaccination on regular

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[208] *Correspondence of Dr.K N Tampi to Dr.Heiser, August 1931*, Rockefeller Foundation, Annual Report of the Rockefeller Foundation, Kerala State Archives, Trivandrum.

[209] V Nagam Aiya, Vol.II, op.cit., p.524.

basis.[210] Thus, although the number of vaccinated increased, in certain provinces, the disease was never denied a fresh supply of victims among the new born areas which relied on the occasional visits of travelling vaccinators. Equally important was the fact that smallpox was never made a notifiable disease in India.[211]

In 1874-75, there was another outbreak of smallpox which lasted for about two years. One can never say that its repetition was because of the ignorance of the people. In 1881-82 smallpox broke out in an endemic form especially in south Travancore causing severe mortality. The severity of the disease was again witnessed by the state in 1891-92, including the capital, in a dangerous form. The mortality rate was high even when vaccination was prevalent.

Nagam Aiya states that smallpox continued its ravages for the following two years, the Quilon division and the taluks at Parur, Kunnatnad and Changanacherry in the Kottayam division suffering most from the scourge. The total attacks registered in the two years were 1,868 and 1,827 with a mortality rate of 583 and 487 respectively. These figures only represent the number brought under medical treatment, a comparatively small proportion of the total attacks and deaths. In 1900-01 a high mortality was recorded. In 1900-02 mortality reached its highest stage tolling it to 12,855 which is more than seven times the number registered in 1900-01.

It is interesting to note that when in the years cholera raged most severe, the ravages of smallpox were comparatively low and in the following years while cholera had abated to a very appreciable extent, there was an abnormal rise in smallpox which prevailed in an epidemic form throughout the country. In 1902-03, the epidemics were decidedly on the decline and in 1903-04 the number of deaths from it were very small being only 483 against 5,070 in the preceding years. The table given below illustrates these facts.

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[210] Mark Harrison, "Public Health in British India", op.cit., p.12.

[211] Ibid., p.12.

Year	Smallpox	Cholera
1895-96	137`	7,055
1896-97	80	4,528
1897-98	48	7,396
1898-99	64	404
1899-00	1,815	10,508
1900-01	12,880	2,296
1901-02	5,070	2,522
1903-04	483	229
Total	20,942	35,298
Average	2,327	3,822
Percentage	5.4	8.87

Table.2: ***Deaths from smallpox and cholera in Travancore for various years***[212]

[212] V.Nagam Aiya, op.cit., p.525.

Progress of Vaccination

According to the available sources, there had been a steady progress in vaccine operation since 1864.[213] Travancore Administration Report for various years (here onwards TAR) clearly illustrate this factor. The following table, for instance, may be considered.

Period	Average vaccination per annuam
1864-1869	**37,708**
1870-1874	**78,520**
1875-1879	**78,716**
1880-1884	**81,186**
1885-1889	**86,929**
1890-1894	**99,996**
1895-1899	**1,31,373**
1900-1904	**1,63,206**

Table.3: ***Statement of average vaccination per annuam in Travancore***[214]

The average number vaccinated during the first period ending with 1869 was only 37,708, which had more than doubled itself in the next period. As per the details provided in Nagam Aiya's State Manual, this rapid growth was due to the increased

[213] A detailed description of the occurrences of smallpox and other epidemic diseases are available in the reports on the Administration of Travancore (TAR) for various years.

[214] V Nagam Aiya, Vol. II, op. cit., 525; TAR for the year 1868-69.

staff sanctioned by the Government in that year. Does it mean that there was sufficient vaccine operation under the state initiative? Was this increase in number an indicator of popularizing vaccination as a prophylactic? If one tries to answer these doubts, one would be surprising by knowing that apparently there was no sufficient mechanism to disseminate vaccine operation among the whole sections of the population. As per the statistics given in Travancore Administration Reports, the total population of Travancore during that period (1900-1904) was above 40 lakhs. Hence it clearly indicates that vaccination did not reach to the majority of population as a preventive medicine, and therefore, it was not an effective method to check the endemicity.

From 1868-89 the strength of the establishment (vaccination) remained unchanged and the slow but steady increase observed in the interval must be noted as satisfactory[215]. This observation further indicates that the state either failed to allocate sufficient fund or sufficient machinery to accomplish the vaccination program. During 1894-99, the number increased by nearly 50 percent from that of the preceding period due of course to the transfer of the department to a specific agency and the strengthening of the staff affected 1895-96. During the last period, the average number increased by nearly 25 percent from the preceding year.[216]

Year	Total Number			Primary Vaccination	Revaccination	Percentage
	Total	**Male**	**Female**	**Total**	**Total**	**Total**
1895-96	**1,09,233**	**----**	**----**	**1,02,219**	**7,014**	**84.37**
1896-	**1,55,611**	**-----**	**-----**	**1,47,882**	**7,729**	**85.38**

[215] V Nagam Aiya, Vol.II,op.cit., p.527

[216] TAR for various years.

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1897-98	**1,51,895**	**----**	**-----**	**1,45,833**	**6,062**	**85.09**
1898-99	**1,39,465**	**----**	**-----**	**1,34,214**	**5,251**	**85.04**
1899-1900	**1,35,450**	**86,606**	**48,844**	**1,18,084**	**17,366**	**83.60**
1900-01	**1,53,785**	**98,454**	**55,331**	**1,22,718**	**31,067**	**88.56**
1901-02	**2,38,536**	**1,46,955**	**91,581**	**1,70,818**	**67,718**	**88.99**
1902-03	**1,38,143**	**85,916**	**52,227**	**1,07,251**	**30,892**	**-----**
1903-04	**1,37,463**	**84,211**	**53,252**	**1,11,636**	**25,827**	**-----**

Table.4: ***Statement showing particulars of vaccination in Travancore during 1895-1904***[217]

According to the State Manual, the largest numbers of operations were performed in 1901-02. Because of the prevalence of smallpox, vaccination had to be pushed forward with great vigour. The average number of vaccinations by each vaccinator was 2,029 in 1903-04. i.e., the same as the general average for the nine years.

[217] V Nagam Aiya, Vol.II, op.cit., p. 528.

But considering that in spite of the very large number of successful vaccinations reported to have been performed during the course of the preceding 40 years and more, the epidemic smallpox always occasionally breaks out with more than ordinary severity and causes terrible havoc among the people, one is apt to suspect the accuracy of these success statistics.

Revaccination was operated periodically so as to ensure that the disease did not occur in a vaccinated person. The number of cases of revaccination was very small till 1900. Where as in that year a satisfactory increase was recorded, being more than three times the number performed in the previous year. The highest number of revaccination was conducted during the period 1901-02. During this period, 67,718 persons were revaccinated. Infantile vaccinations were very low till 1900-01. In 1901, 16,723 infants were vaccinated. The average cost of each successful vaccination was from 1 *anna to* 3 *annas.*[218]

During the period 1908-09, 1,33,630 persons were vaccinated in total. It was 1,50,833 in the previous period.[219] Total 6,700 infants were successfully vaccinated. According to the report of the sanitary commissioner, the fall in the number of vaccinations was due to the withdrawal of revenue peons from the vaccination departments. During 1910-11, total 1,74,631 persons had undergone vaccination, of these 1,50,955 were primary vaccinations and 23,676 were revaccinations. Total 7,559 infants were vaccinated as against 6,959 in the preceding year.[220]

When the number of revaccination is being deducted from the total number of vaccinations during a particular period, it becomes apparent that the newly vaccinated persons were very low in number. This could be, perhaps, one of the reasons why smallpox occurred regularly even in spite of the increase in vaccination.

According to TAR, for various years, the work of vaccination in the state has been, for some time, engaging the anxious consideration of the Travancore

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[218] Ibid., p.528.

[219] TAR for the year 1908-09,Government of Travancore, Trivandrum

[220] TAR for the year 1910-11, Government of Travancore, Trivandrum.

government. In June 1911, a committee was appointed to inquire into and report on the working of the vaccination branch of the Sanitary Department.[221]

Period	Total vaccinations	Primary vaccinations	Revaccinations	Infantile vaccinations
1907-08	**1,50,833**	**-----**	**------**	**------**
1908-09	**1,33,630**	**1,19,953**	**13,677**	**6,700**
1910-11	**1,74,631**	**1,50,955**	**23,676**	**7,559**
1911-12	**-------**	**---------**	**-------**	**------**
1912-13	**--------**	**---------**	**-------**	**------**
1913-14	**2,40,213**	**--------**	**-------**	**------**
1914-15	**2,19,631**	**1,92,005**	**27,626**	**12,648**
1915-16	**-----**	**-----**	**-----**	**------**
1916-17	**-----**	**------**	**-----**	**------**
1917-18	**-----**	**-----**	**-----**	**-----**
1918-19	**-----**	**----**	**----**	**-----**
1919-20	**----**	**-----**	**-----**	**-----**

[221] TAR for the year 1911-12, Government of Travancore, Trivandrum.

1920-21	**2,30,562**	**-----**	**-----**	**-----**
1921-22	**2,33,727**	**2,02,965**	**30,762**	**-----**
1922-23	**------**	**-------**	**------**	**17,280**
1923-24	**2,44,759**	**-------**	**------**	**16,657**
1924-25	**------**	**------**	**-----**	**-----**
1925-26	**2,32,484**	**-----**	**-----**	**16,383**
1926-27	**2,57,033**	**2,21,337**	**35,696**	**20,720**
1927-28	**2,51,511**	**2,13,723**	**-----**	**14,987**
1928-29	**2,26,928**	**1,87,744**	**-----**	**14,987**
1929-30	**3,43,399**	**2,47,919**	**95,480**	**20,985**
1930-31	**3,54,628**	**2,07,933**	**1,46,695**	**23,204**
1931-32	**4,08,721**	**2,68,603**	**1,40,118**	**24,577**
1932-33	**3,23,638**	**2,42,261**	**81,377**	**23,661**
1933-34	**12,84,938**	**4,00,492**	**8,84,446**	**26,916**
1934-35	**13,90,396**	**4,30,521**	**9,62,575**	**40,717**

1935-36	**10,76,729**	**3,33,905**	**7,42,824**	**31,681**
1936-37	**11,66,721**	**3,32,532**	**8,34,189**	**33,123**
1937-38	**114,53,318**	**2,74,769**	**8,33,874**	**36,675**

Table.5: ***Statement showing the details of smallpox vaccination for various years***[222]

Towards Compulsory Vaccination

Vaccination was compulsory in all the municipal towns except Trivandrum. The population of Travancore according to the last decennial census taken in 1921 was 40,06,062. There were 20,32,553 males and 19,73,509 females in total; and there was an increase of 16.8 percent in the total number of population, over the figure in the previous census in 1911 which was 34,28,975. There was thus an average density of 525 persons per square mile in Travancore during 1921. If that is the case, only 9.38 percent of the total population was protected under vaccination. This further raises doubts about the efficacy of the state medicine provided to the subjects.

In 1923-24, a new building for the manufacture of vaccine lymph was constructed and it was handed over to the department. About 1,92,450 grains of glycerin vaccine and 4,548 grains of lanoline vaccines were manufactured during the year. Samples of the lymph prepared were sent to the King Institute, Guindy, and their quality reported to be satisfactory. Although vaccination was compulsory in all municipal areas and towns of the state, it was not at all compulsory in rural areas, so that they did not have any access to the facility of Western medicine, if it was effective at all. According to TAR, there was a steady increase in infantile vaccination, which according to the sanitary department was a successful advance. Whether newly born infants of all areas were covered under such a protection remains unanswered since vaccination was not made compulsory in rural areas.

[222] TAR for the years 1907-1938, Government of Travancore, Trivandrum.

Since there was no compulsory law for vaccination in all areas, the question of enacting a law for enforcing vaccination among people living in rural areas had been under consideration since 1929. As shown in the above table there was 3,43,399 vaccinated persons in Travancore during 1929-30 alone. Thus it was accounted an increase of 1,16,471 vaccine operations performed in the state. The increase, it was reported, was chiefly due to the prevalence of smallpox in some of the taluks of the state and it contributed both by the rural and municipal vaccinators. Each vaccinator on an average performed 233 operations in a month in rural areas and 169 in urban areas; while the minimum fixed was 150. A total quantity of 2,84,171 grains of glycerin vaccine was manufactured of which 2,05,647 grains were supplied to vaccinators and conservancy overseers. The total quantity of vaccine lymph manufactured during this year was 98,954 grains in excess of the figure of 1,104 and this was due to the large demand for vaccine from all quarters owing to the prevalence of smallpox in the state. In the year 1920-31, smallpox broke out in another endemic form and it tolled 1472 life. The disease assumed an epidemic form in at least 20 taluks of the state. The heaviest mortality was recorded in Ambalapuzha Taluk, viz. 307, followed by the Trivandrum taluks with 241 deaths and in the Neyyattinkara taluk with 144 deaths. Vaccination was conducted on a large scale in the infected localities and six extra vaccinators were employed for a period of three months.[223]

Even while there was the occurrence of smallpox in a severe form, the percentage of the total number of vaccination performed in the state remained comparatively low. During this year, 3,54,628 operations were performed in total.

The practice of cold storage, by keeping vaccine lymph in ice, which was not a satisfactory method, was discontinued and a refrigerator was installed for the purpose towards the close of the year. There was an increased demand for the vaccine. According to TAR, the increased demand was due to the prevalence of smallpox in an endemically epidemic form in some of the taluks during the year.

The apparition of smallpox in an endemic form again during the period 1930-31 in four taluks in Travancore causing heavy mortality prompted the Royal authority to implement a temporary law to make vaccination compulsory in rural areas during

[223] TAR for the year 1930-31, Government of Travancore, Trivandrum, p.180.

the last quarter of the year. In the succeeding years, vaccination continued to be compulsory in the municipal towns. Temporary rules for compulsory vaccination in the rural areas also continued to exist. During that year, there was an increase of 54,093 in the total number of vaccinations performed. The number of infants less than one year of age successfully vaccinated was 24,577, showing an increase of 1,373 cases. The medical and sanitary officers had rendered a valuable service to accomplish the targeted task.

The period 1931-32 was more or less free from the havoc created by smallpox. Unlike in previous years the total number of attacks and deaths from smallpox was 1,491 and 456, respectively. The disease remained only in a sporadic form during this year.[224]

In order to cover the rural population effectively under vaccination in February 1932 the Travancore Government passed a temporary law of compulsory vaccination in rural areas of the state. Nevertheless, there was a decrease in the number of total vaccination performed during the period 1931-32. During this period, 3,23,638 vaccinations were performed. The decrease of 85,083 from previous years' was due to the fact that, in 1931-32, vaccination was done on a very large scale in order to quell the severe smallpox epidemic, which had prevailed that year.[225]

The glycerinated lymph used for the purpose of vaccination was as usual manufactured in the Trivandrum Bacteriological Laboratory. Total quantities of 2,70,274 grains of vaccine were supplied to vaccinators.

In 1933-34, there were 1,832 attacks of smallpox. Among this, 647 had lost their life. The disease prevailed only in sporadic form except in Karunagappalli and Mavelikkara which remained rather badly affected for some time. By the middle of the 1934-35, smallpox broke out in a severe form creating havoc in many taluks such as Karunagappalli, Kartikapalli, Mavelikkara, and Ambalapuzha. The taluks of Neyyatinkara and Trivandrum were also badly affected. There were altogether 2,806 attacks in the state, out of which 1,074 cases proved fatal. Vigorous vaccination work was done in the stricken areas, besides adopting other preventive measures. The

[224] TAR for the year 1931-32, Government of Travancore, Trivandrum, p.180.

[225] Ibid., p.180.

intensive vaccination campaign started in the previous years was continued. The total number of vaccinators employed was 131. A total of 13,90,396 vaccine operations were performed during this period.[226]

Including the vaccinated in the two previous years, it is seen that nearly 59 percent of the total population in the state afforded protection against smallpox. From the commencement of the intensive vaccination campaign by the middle of 1923 and till the end of 1935, the work was finished in 220 *Pakuthies* of the state, distributed over 19 taluks. A total number of 40,717 infants under one year of age were afforded protection from smallpox during this particular period. The incidence of smallpox during 1936-37 was no more than nominal, the total death from the disease being only 76 in a population of about 5.5 millions.

This phenomenal reduction is ascribed to the progress made in and the success achieved in the intensive mass vaccination campaign put in to operation from 1934 onwards. One of the remarkable achievements, according to the available data from TAR of the year, was the intensive vaccine operation reaching the total number to 11,66,721 in that year. Infants younger than one year age who were afforded protection during the year numbered 33,123. By 1938, the public health conditions of the state had become more or less normal. One of the significant features was the extremely low incidence of smallpox merging almost on extinction and the total absence of cholera and plague. This was a clear indication of the marked success in the control of the principal epidemic disease in the state.

There were only 32 attacks and 4 deaths from smallpox in a population of over five and a half millions, the deaths from smallpox in the previous year viz,1112 (M E) being 76 and 652 respectively. According to TAR, the low incidence of smallpox is ascribed to the high degree of protection that was conferred upon the people by the vigorous and intensive vaccination campaign. By 1948 smallpox prevention had met a satisfactory level by limiting the number near zero. Thus the enactment of a low of compulsory vaccination became a noted venture in that period.

[226] TAR, for the year 1934-35, Government of Travancore, Trivandrum, pp.196-97.

Principal Causes	Deaths	
	1947	**1948**
Smallpox	101	0
Cholera	-	58
Typhoid	373	13,969

Table.6: ***Death from major epidemic diseases in Travancore during 1947-48***

Source**:** ***TAR for the year 1947-48***

This table shows that unlike in previous years, the number of deaths due to smallpox was zero in 1948. Whether it is because of the popular acceptance of smallpox vaccination with cow-lymph as a part of the 'scientific' Western medicine or due to any other reason has to be analyzed further.

Assessing smallpox vaccination, its successes and failures in Travancore would be a tedious task since there are insufficient data. Even during smallpox epidemics, the actual numbers of recorded smallpox deaths were quite insignificant, contradicting anecdotal evidences. Hence, the only alternative would be to look in to the percentage of the population receiving vaccinations as a proxy for immunity to smallpox epidemic.[227]

[227] Aparna Nair, op.cit.,p.10.

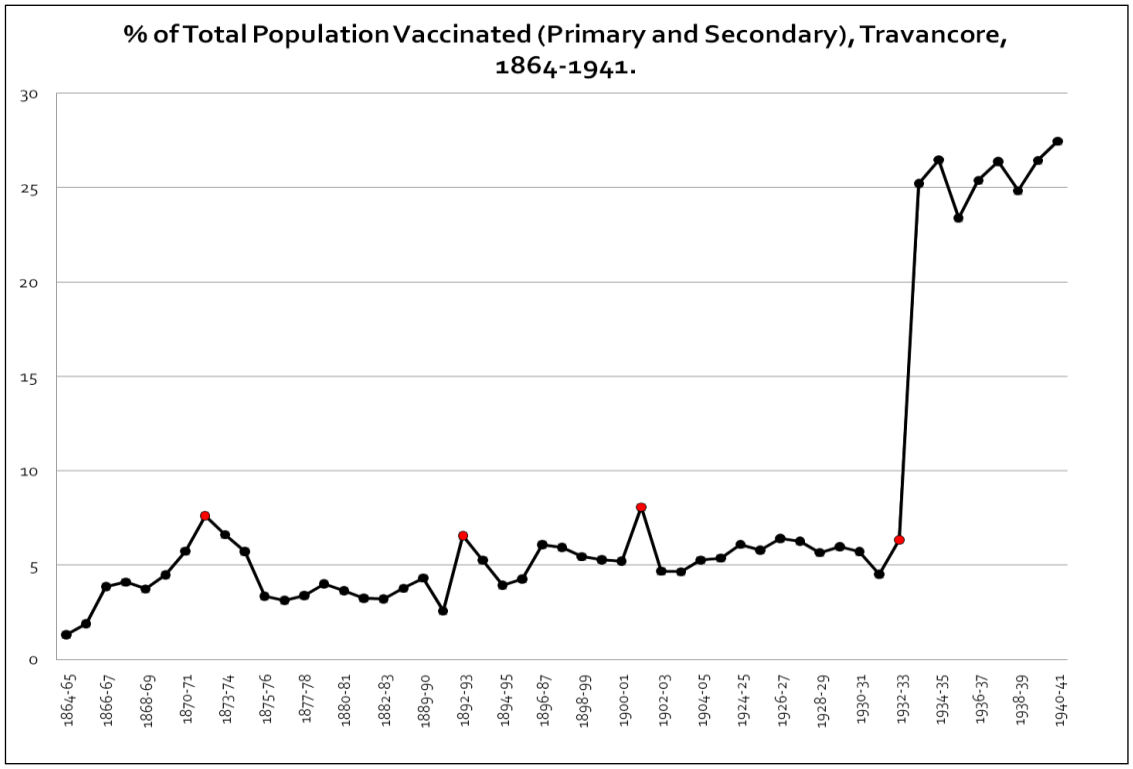

Chart. 1
Source**:** Aparna Nair, "The Indifferent many" op. cit.

We have only scanty of records regarding actual numbers of vaccination in Travancore. According to the available data, till 1850, the total number of vaccinations performed in the state remains vague. In 1844, Dr. Patterson commented on the continuing wide prevalence of smallpox in Travancore and the very small proportion of the population that were actually undergoing vaccination — amounting to less than a third of the total population of the state.[228]

Dr. Cullen, the Durbar physician reported in 1844 that despite the liberal establishments of the Government, smallpox vaccination had by no means

[228] Cover File, Bundle 19, SL 286, File No.15766, 1844.Letter from W.Cullen, Resident to the Diwan of Travancore, 15th May 1844; Corrspondence between the Resident and the Diwan shows that the British paramountcy was unhappy with the situation in Travancore with regard to vaccine operation. The above mentioned estimate is most likely to be very wide off the mark—later on more reliable statistics indicate less than 10 percent of the total population were ever vaccinated even as late as the 1890s.

encompassed the majority of the population. According to him, the vaccine operation status in Travancore during that time was far from optimal.

When considering the percentage of the total population of Travancore who received vaccinations between 1865 and 1941, the picture is still quite dismal. It is apparent from the available data (as shown in chart. 1) that less than 5 percent of the total population were receiving either primary or secondary (revaccination) vaccinations annually until 1900. From 1900 onwards, there is a slight upward trend until the 1930s. If we consider how many of these early vaccinations were likely to have been actual failures owing to deteriorated vaccines, inadequate vaccine storage facilities, poor vaccination techniques in addition to patchy follow up inspections of the vaccinated individuals, the numbers are much likely to have been lesser. It further shrinks when we take out the revaccinated individuals.[229]

The total number of females vaccinated in Travancore was generally much lower than the number of males vaccinated in several of the religious and caste groups. It is consistently noticeable that Christians had the highest vaccination rates when compared to either Hindus or Muslims. Muslims had the lowest vaccination rates, at least between 1868 and 1898.

Religious conservatism and caste rigidity, low literacy rate etc., must be the reasons for the lowest vaccination rate among women in Travancore during this period. Among the high caste Hindus and among the Muslims, women had only little access to vaccination. The concept of 'purity' most often prevented the performance of vaccination among women of particularly high caste Hindus. If one goes on checking TAR for various years, one can interestingly find that at least 50 percent of all Hindus of inferior castes (as classified by the administration reports) had been vaccinated. '*Malayalee Sudras*' another category among the Hindus constitutes another portion of persons who got vaccinated. However, a detailed report on how many numbers in each religion got vaccinated for a particular year is missing in administrative records of Travancore.

Hence, one can conclude that the performance of smallpox vaccination for protecting the people from the ravages of smallpox was either inadequate or poor.

[229] Aparna Nair, op.cit.,p.12.

Another important fact was that smallpox still maintained a fierce appearance in Travancore up till 1900, which strongly support the aforesaid argument. It was only by 1948 that the Travancore state could limit the number of smallpox affected persons to zero. However, vaccination against smallpox and to get popular acceptance in the state with a state intervention as an ally with the British paramountcy became a breakthrough venture for western medicine.

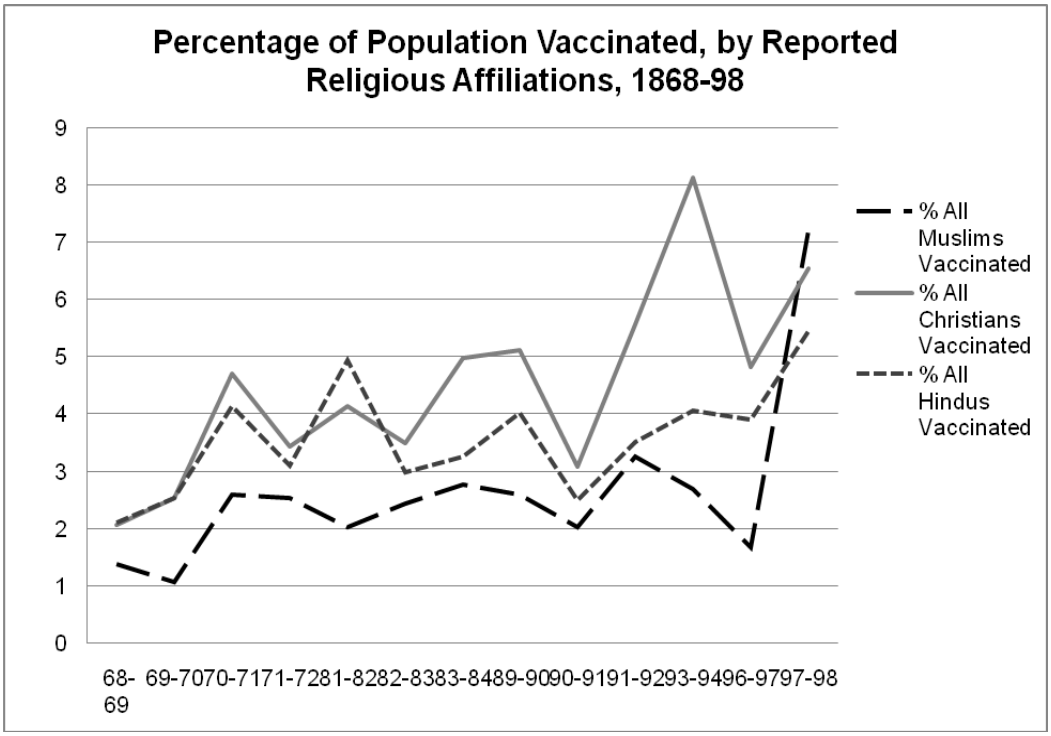

Chart. 2
Source**:** Aparna Nair, "The Indifferent many", op.cit.

Method and impact of vaccination.

Hand to hand vaccination otherwise known as the *arm to arm* vaccination was widely prevalent in Travancore until the introduction of cowpox vaccination; and it was carried with the humanized lymph. This process however began with identifying suitable vaccinifers, or human lymph carriers, who were often young children belonging to the poorest socio-economic groups or lower castes. These vaccinifers were initially vaccinated with cowpox lymph and those children who developed the most 'suitable' vesicles or cicatrices travelled with vaccinators across their circles, 'donating' lymph for all vaccinations. When a willing individual came forward to be

vaccinated, the vesicles on the vaccinifer's arm was perforated, the lymph extracted and inserted into the cut made on the vaccinee's arm.[230]

Vaccinators were given *battas* in the form of salary for their service. Although the parents and guardians were provided with a small incentive to travel along with the vaccinators, it was very common for vaccinators to have difficulties enticing these young carriers to travel with them.[231]

Vaccination was further assisted by other private individuals and agencies. Medical missionaries undertook the task of vaccinating people especially of lower classes. The mission was frequently conducted at various mission hospitals in the princely state, including Neyyoor Hospital being one of its main centres. In the period of 1861-68, more than 11,000 people were vaccinated under the auspicious of surgeon Lowe in Neyyoor. These medical missionaries also conducted training programmes for other people to get acquainted with the vaccination process. Many native physicians were also trained in vaccine operations.

According to the available data, it is apparent that Travancore never had enough vaccinators to ensure vaccination and revaccination as elsewhere in British India. As pointed out by Leonard Rogers "there were many handicaps to vaccination in India." He quotes Dr. K .Millard's observation that "attempts to control smallpox in Department is sufficiently manned to enable it suitably to deal with the whole population under its control and, until this is done, it will be impossible to ensure that smallpox disappears from the list of epidemic diseases from which India continue to suffer."[232] This admiration itself i.e., the insufficiently funded and totally fractured public health program in British India itself becomes an evidence for the failure of vaccination in Travancore as elsewhere in India. This happened, perhaps, because of many issues. Firstly, complaints about the lack of trained vaccinators to achieve sufficient general and infantile vaccination emerged even as late as 1914. Secondly, the poor payment for the vaccinators was a major issue. For instance, a fifth class

[230] TAR for various years. TAR for various years.

[231] Aparna Nair, op.cit.,p.21; V Nagam Aiya,Vol. II, op.cit.,p.525

[232] Leonard Rogers, 'Smallpox and Vaccination in British India During the Last Seventy Years', Section of Epidemiology and State Medicine, in *Proceedings of the Royal Society of Medicine*,Vol.XXXVIII,p.135.

vaccinator, as shown in 'The Travancore State Manual' was paid a maximum of Rs.5.25 in 1873.This 'underpayment' hardly attracted sufficient people to take up the vaccination job for their livelihood.

According to many newspaper reports, the vaccinators themselves faced many obstacles from hostile people (religious or caste wise) and local authorities, difficult climate and terrain etc.[233] They further reported that despite the expanding vaccination establishment, vaccinators rarely vaccinated the specific number prescribed or assigned to them; and rarely visited the interior of the district, and consequently the people of these parts were unable to get vaccinated though they were willing to do so.

Supply of viable vaccine with regular interval was problematic, which fuelled the issues regarding vaccine operation. Several problems also attached to the workings of the central Vaccine Depot in Trivandrum. For instance, vaccine production in the early years was very much a trial and error process. Although increasing numbers of calves' vaccines were inoculated during the early 1890s, several of these operations failed to produce viable vaccines. What vaccines were produced locally was also damaged by skyrocketing temperature, inadequate storage facilities and poor lymph etc.

Often, the vaccinators were only able to return once in three months to a village where vaccinations had been conducted. After 1890, either a vaccinator or an inspector was able to visit a village at least once a month, ensuring that some of the cases were tracked and confirmed.

Travancore's vaccination venture, unlike in British India, was entirely funded by local fund. While this was unusual for the time, part of the reason why the vaccination drive experienced a drastic lack of success was partly the consequences of insufficient financial investment in the program. In spite of the State's declaration and promise to financial allotment, it could not accomplish this at the practical level. Most often government, investment was reallocated in many other public areas.

[233] Cover Files, Bundle No.42, File No.16152, Letter from Dr.Pulney Andy to the Superintendent General of Vaccination, Travancore, 2 May 1873, Kerala State Archives, Trivandrum.

Apparently, Travancore's public health system was still embryonic.[234] Hence they could not invest sufficient attention to the vaccination program. If welfare of the subjects based on 'Hindu Charity' was their agenda, then vaccination would have been much more efficiently handled by the state of Travancore during those days. Hindrance to such a venture might have been from the British Government due to inadequate fund allocation, compulsory annual taxes or levies, extra expenditure for the maintenance of military barracks etc. Moreover the British authority apparently had less concern about the health and hygiene of the natives than their own men stationed in the native state.

Resistance to vaccination: rituals, beliefs and native apathy

Smallpox is said to have been two thousand years old in India. There are references in Sanskrit medical texts about a pustular disease namely *masurika*.[235] Smallpox as a disease is named and described in the earliest Sanskrit medical texts those of *Charaka* and the *Susrutha Samhita* which scholars date to the 4th century. The disease is called *masurika*, derived from a word meaning 'lentil' or called 'pulse' since the boils resembled in color and shape a local variety of that legume. However, there is no mention of variolation or of the goddess. According to the author, it is safe to assume that in practice smallpox was connected to the goddess S*itala* at least since 12th century. The earliest mention of variolation comes from Europeans in India and date back from the early 18th century. Variolation as a method of controlling epidemics was associated with the worship of the goddess of smallpox who was believed to have caused the disease.[236]

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234 For a better understanding of the funding and aiding system, it is important to have an analysis on the public health system of Travancore during the colonial period. However, the present study does not cover those aspects as it mainly focuses on the patterns of state patronage to western medicine for its institutionalization in Travancore. Detailed information on public health and sanitary works in Travancore can be collected from various sources like TAR for various years, Travancore State Manuals, State Gazetteers, Cover Files issued by the Government etc.

235 Reference to this pustular disease smallpox as 'masurika' is found in Sanskrit text dating back to over 2000 years showing that it was an ancient affliction in India…There are earliest references from medical treatises of Charaka and Sushrutha, whose floruit period can be anywhere between Fourth to Sixth Century BC and Fourth Century AD…Ishrat Alam ,op. cit., p.85.

236 Ibid, p.85.

Resistance to vaccination may not be necessarily due to a political cause. There are various factors entwined with each other making resistance to vaccination a movement in India. Famine has played a prominent role in transforming smallpox into a calamity. Political turmoil was another factor which disrupted the annual work of the vaccinators as well as quarantine arrangements for the variolated person. All these factors transformed a disease into a calamity. When the revenue extraction pushes the villagers to extreme poverty, malnutrition lowers the population's resistance to infectious diseases. Wars also disrupts villagers indigenous mode of disease control through the regular annual visits of the variolators, diet and inoculation fail; all they are left with is their capacity to write and sing hymns to the goddess, which the government's destructive cannot rob them of.

Even though vaccination was introduced by the British in India at the very beginning of the late 19th century, vaccination did not naturally displace variolation in India as had been the case in Europe, "since variolation largely answered the Indian conception of what effective protection should consist in". Buchanan Hamilton found in 1812 in Bhagalpur district that general adoption of the practice (of variolation) render(s) the introduction of the vaccine of very little importance.

In Banaras priests had resorted to agitations against vaccination. In Ceylon the rumor was that vaccination meant taking an oath in favor of British rule. Such rumors were no doubt fanned by the autocratic behavior of the colonial government in outlawing variolation and then proceeding to make vaccination the single most imported activity of its public health agencies. But due to incomplete coverage of the population and the relative effectiveness of liquid lymph vaccine in warm climates, the disease retained its high endemicity and its tendency to recur periodically in epidemic fashion.

Variolation was eliminated by governmental fiat. Customarily, the body of a person who died of smallpox was not cremated since it was considered that this would enrage and further exacerbate the heat of the goddess. It is a common belief amongst the rural folk of India that every phase of human life is directly or indirectly

controlled by some divine power. Naturally enough, diseases are also attributed to some sort of unnatural or rather supernatural phenomenon.[237]

Across northern India, from Sind and Gujarat in the west, through northern and central India to Bengal, Assam and Orissa in the east, smallpox was identified with a goddess known generally as *Shitala* but also simply and expressively called Mata — "Mother". In some areas Shitala was the name given to both the disease and to the deity who presided over it.[238] Although Shitala was often referred to as "the goddess of smallpox" or simply "the smallpox goddess", it was understood to be the manifestation of her personality and presence rather than her essential character. The disease was her "sport" or "play" and had to be tolerated accordingly or given the respect and honor due to the visiting goddess. Hence, smallpox was conceptualized not as a disease but rather as a form of divine possession, and the burning of fever and pustules that marked her entry into the body demanded ritual rather than therapeutic responses. And hence for some Hindus, recourse to any form of prophylaxis or treatment was impious, likely to provoke the goddess and further imperil the child in whose body she currently resided.[239]

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[237] It is generally believed in India that if a man suffers from any disease, it is either due to an evil spirit or the working of a sorcerer or believed to be brought on by the wrath of an angry God. These supernatural phenomena have such impact in the minds of the people of India and hence according to them, every disease has its own theory of origin. "If smallpox comes of its own accord in the ordinary form, it is harmless, but a more dangerous variety is attributed to the anger of local deities." It is believed that usually these deities take the help of various demons. Hence the concept of the smallpox—deity and its origin varies from place to place in India. For more details, see, Babagrahi Mishra, *Shitala: the smallpox Goddess of India*, and also, David Arnold, "Colonizing the Body", op. cit., p.123.

[238] In Bengal Shitala was sometimes called *Basanta* or *Basanta-Chandi* (spring goddess) and the disease *basanta rog* (spring disease), after the season in which smallpox was most prevalent and in which the goddess was most widely celebrated. In Bengal there were a few temples devoted to Shitala, often only a small shrine, a symbolic pot, or piece of decorated stone.

[239] Here the term Shitala refers to the "Cool One", this has been interpreted as a euphemistic way of avoiding reference to one of the most obvious and alarming aspects of the disease — its intense fever. But there exists different views regarding this concept. Although in some areas, festivals in Shitala's honor were accompanied by the sacrifice of goats, chickens, and other animals, more commonly worship was made by offering such 'cooling' substances as curd, plantain, cold rice, and sweets. During festivities for the heat abhorring goddess, the preparation of cooked food was prohibited, domestic fire was extinguished, and sex as a 'heating activity was banned. For more details, see, David Arnold, "Colonizing the Body", op.cit., p.123

When an attack of smallpox occurred, cooling drinks were offered to the patient as the abode of the goddess, and his or her feverish body was washed with cold water or soothed with the wetted leaves of the Neem, Shitala's favorite tree. When no ritual specialists attended the patient, women of the household fanned and cooled the body, or sang song in praise of the Devi (Goddess).

As mentioned earlier these folk deities were varied from region to region. As for instance in south India, this deity was known in various names in various places. The Hindu belief was and still is in some places that smallpox was, variously, the manifestation of or embodiment of the goddesses *Mariamma, Bhagavati, Vasoorimala,* and the fierce *Kali*. There exist various temples for each of these deities, even though the attributes of these *gramadevata*s are similar.[240] *Mariamma* is a Hindu goddess worshipped primarily in Southern India, Sri Lanka and South-East Asia, among speakers of Tamil, Telugu, Kannada and Malayalam. Her most dramatic association is with deadly pestilence that suggests her common, but not always accurate, appellation "the smallpox goddess." There are numerous temples associated with this goddess, known also as *Muthumariyamman* and *Karumariyamman*, among others.[241] In Travancore and Malabar such temples is situated in various places under various names. Mariamma worship is still in vogue throughout Kerala.

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240 In Orissa, smallpox, along with many other diseases, is referred to most colloquially and most often simply as "mother" or as *thakurani*, i.e., "lady" or "goddess." As such, every village or more generally every territory's goddess is a variant of *Sitala* who herself is a variant of *Durga* or *Kali*", the Great Goddess. As the village mother, she is the particular earth within that village or territory's boundary.
The following description by Egnor of *Mariamma*, the Tamil goddess of smallpox, could apply precisely to the Orissan *thakuranis*: *Mariamma* "took her birth in earth" (...); she is represented as the head of a woman lying on the ground - or rising from it – and her statue, in the earthen huts which are most of her temples, is of earth. People are born in earth; the home land is "the earth I was born of" (...). "Every child is a good child in his birth from earth."

241 Etymologically *Mariyamman's* name varies. "*Muttu*" is a word that means "pearl", a euphemism for the disfiguring pustules contracted during an onset of smallpox or chickenpox. Iconographic representation depicts the goddess aspersing these "pearls" on to humans from the ends of a flywhisk or a feather. The term '*Mari*' is associated with pestilence and disease, giving one possible meaning to her literally translated title," the disease mother". The goddess is described as having an unpredictable capacity for anger and violence; she can also be gracious and loving. *Mari* has a third meaning 'rain". Mariamman has been described, euphemistically, as a cool goddess. Her images like to be cooled with water, traditionally most active in the hot season, when contagious fevers pose dangers, and when rains are desirable, she is approached by worshipers requesting coolness and rain. One of the regular rituals performed at *Mariamman* temples is to cool the image of the goddess as well as her temple in a constant flow of water. Inside the temple devotees, with the aid of a local priest, pour on her image cooling substances, including water, milk, yogurt, and sandalwood paste. Outside women pour pots of water along the

In colonial India vaccination was resisted on the grounds that it represented the imposition of an essentially alien system of medicine/Western medicine or it sought to replace the indigenous preventive practices such as variolation.[242] Firstly, resistance was also based on the perceptions of caste, purity and pollution. Objections were also there based on purely medical ground; and also due to the idea that children were to be used to store and transport vaccine lymph.[243]

As it was elsewhere in British India, popular response to vaccination in Travancore was quite diverse and predicated on religious beliefs, social norms, perceived threats to health and suspicion over state intentions. With regard to arm-to-arm vaccinations, an impression prevailed among the people in Travancore that inoculation with lymph drawn from the vaccinifer's hand and then injected in to an unvaccinated person's body will have the intentional effect of spreading those diseases from which the carrier was already suffering. Hence, as in many other parts of India, people of Travancore (although not all sections) expressed an aversion to the transfer of bodily fluids from another person in to their own. It was also believed that vaccination was the direct cause of diseases such as fever. Surprisingly, the Hindus had diverse sets of beliefs regarding smallpox. They believed that smallpox was a manifestation of their (Hindus) deities, and any attempt to control the course of the disease was considered an 'impious interference'.

Francis Day observes in Cochin that the association of smallpox with the goddess 'Kali', and propitiation of the goddess which included the decapitation of a cock were considered far more effective (and accompanied by less risk of offending the powerful goddess of smallpox) than vaccination. Another factor that many feared vaccination in Travancore was mainly because its association with Europeans and

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base and walls of the temple, most often during the annual festival associated with the goddess. For more details, see, William Harman, 'Possession as protection and affliction: The Goddess Mariyamman's fierce grace' in Fabrizio M Ferrari (ed.), *Health and Religious Rituals in South Asia, Disease, Possession and Healing*,Routledge,London,2011,pp-185-87.

[242] The reason for this is that the British medical circle held various causes for its displacement with vaccination. According to David Arnold, they held the view that variolation was dangerous on three counts. First, it was said that it obstructed the progress of the safer and superior practice vaccination; second that it often caused a severe fatal attack of the disease in those inoculated; and third, that by propagating natural smallpox, variolation gave rise to epidemics of the disease. David Arnold, "Colonising the Body", op.cit., pp.145-147.

[243] Aparna Nair, op.cit., p.17.

Christianity, and they believed it to be a "manoeuvre to inveigle them in to Christianity".[244]

The Namboodiri community had shown much aversion and hence they resisted vaccination. Although some of them were protected by the vaccinations, majority of the population of this community had been left to the vulnerability of the scourge. They mainly opposed the process of arm-to-arm vaccination. Transferring bodily fluid from one person to another, they believed, was pollution. It was mainly because purity was the pivot on which the community rested. Since the vaccinifers were mostly young children belonging to the lower castes, the transfer of the fluid from them was considered deeply polluting. The Namboodiri Yoga Kshema Sabha even passed an official resolution opposing vaccination in 1909.[245]

David Arnold opines that perhaps the greatest objection to vaccination was its raw secularity. There was no ritual and dietary preparation, no appeal to the goddess of smallpox to guide the child safely through such a dangerous defile. Since, there was "no preparation of the body or, Poojah, "no blessing could... attend it". Vaccination was seen as an "irreligious" act, an encroachment on the prerogative of the goddess without any attempt to "conciliate her with worship".[246] Vaccination treated smallpox purely as a disease, stripped of any religious significance — if indeed it was seen to have any connection with disease at all and not to be merely the "mark" the colonial state made on its subjects.

The Muslim community, perhaps, were hostile to the vaccination process. As per the available data, they had almost consistently lower vaccination rates than other communities. There may have been several reasons for this. Several had contended the view that the intervention of vaccination was a direct interference with the complete submission to Allah, which was required of all devout Muslims. Another threat of resistance was probably grounded on the fact that vaccination necessitated

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244 Rumor claimed that it was a deliberate attempt to violate caste and religion and force conversion to Christianity. Vaccination was construed as a site of conflict between malevolent British intent and something Indian, something sacred, which was under threat of violation and destruction. David Arnold, "Colonizing the Body", op.cit., pp.143-144

245 TAR for the year 1908-09.

246 Ibid., p.143.

the intermingling of Muslim and non-Muslim blood — the insertion of non-Muslim blood into Muslim bodies. Other lines of opposition were grounded on the fact that vaccination was not mentioned in the Koran and it should not therefore be practiced among Muslims.[247]

Conclusion

Ideologically, vaccination possessed as much value to Travancore as it did to the British India. Vaccination granted Travancore the unique opportunity to communicate to the British their willingness to toe the colonial line and disseminate a quintessentially colonial medical technology.[248] The abrupt decision taken by the British to replace indigenous inoculation with cowpox vaccination was a part of their hidden agenda. By the 1880s, vaccination in Travancore had been transformed into a much vaunted and very public success story of the Dharma Raja's efforts to introduce the benefits of western medicine to the public. But whether vaccination programme was indeed a successful venture, cannot not be accepted since we have seen the constraints while it was implemented in Travancore. There were lots of drawbacks in that venture. It is apparent that vaccination could not reach to the entire section of the population in Travancore. If 'charity' had been the motive of the ruling Rajas, then it was ultimately a political move to ensure their legitimacy over the people of Travancore by being an ally of colonialism, simultaneously.

Absence of a compulsory vaccination law apparently proves that the State intention initially was to protect the urban population from the ravages of smallpox at least until the 1890s. It mainly included the upper class sections like bureaucrats, educated middle class and others. Although the venture had started by 1811, vaccination was not compulsory in the rural areas until 1890s. Assessments of vaccination statistics reveal the fact that the operation was actually able to reach only a small percent of the total population.[249] Hence it is understood that the state had a

[247] Aparna Nair, op.cit.,p.20.

[248] Ibid., p.34.

[249] Ibid.,p.34

notion that the dissemination of Western medicine was possible only through the upper sections of the society, particularly the western educated middle class.[250]

In such a context, the ruling raja's agenda of making Travancore a 'progressive' native state is debatable. As David Arnold puts it "because of the self-interested reason for colonial concern, medical intervention was piecemeal and selective, with scant resources concentrated in areas vital to the operation of the colonial economic and administrative system. Thus, while the mine compounds, the plantations, the barracks and the main urban centers were favored, there was a general neglect of the rural population and of the health of the women and children. There was an emphasis on epidemic rather than endemic disease, and upon curative rather than preventive medicine."[251]

It was only after 1900 that rapid progress in vaccination in Travancore was achieved. Previously, for about one century, the venture was still in its embryonic form which we can say was aimed at the urban population of the society. Beyond doing charity, the state apparatus had an aim of disseminating the western system of medicine particularly through the western educated Indians who had been rendering valuable service for the government in the form of bureaucracy. Moreover, Travancore's public health system was embryonic and constantly evolving, and was never extensive enough to ensure the surveillance, vaccination, re-vaccination and inspection of the entire population up till the 1900s.

Caste system was yet another factor for the divisive force that confronted vaccination policies in the state. This gave rise to native resistance based on apathy, notion of pollution and so on. In an effort to popularize the vaccine operation, Travancore always tried to put their royal seal of legitimacy on vaccination

[250] As Gyan Prakash puts it "the western educated Indian elites were quick to recognize this new space of mediation, and sought to intervene by placing themselves as agents of modern transformation, Gyan Prakash, "Another Reason", op.cit., p.144.

[251] David Arnold, "Imperial Medicine", op. cit., p15.

programs.[252] There were many obstacles in vaccinating women and children in Travancore during that period.[253] The native apathy was one among those obstacles.

Smallpox and its encounter in Indian context for the British in the colonial period had posed severe challenges in their process of colonization. Western medicine after 1835 was taken as the hallmark of a superior civilization, a sign of the progressive intentions and moral legitimacy of colonial rule in India and the corresponding backwardness and barbarity of indigenous practice.

Modern medicine forged new and powerful links between the imperial capitals and distant colonial domains. There were several imperatives behind increasing Western medical intervention. One was the growing realization, which first gained recognition in India during the course of the nineteenth century, that the health of European soldiers and civilians could not be secured through measures directed at their health alone. Military losses to disease were particularly pervasive in forcing the British to take responsibility for indigenous health with causalities often heavier from diseases than from battles. Moreover, given the military's importance to the maintenance of imperial control, the health of soldiers was high priority for the colonial state.

The advent of smallpox vaccination in Travancore, therefore, should be placed in the context of colonialism and its agenda to introduce western medical system as a part of colonization. Hence, vaccination obviously becomes a breakthrough for this alien system to enter in to the indigenous population of Travancore. Although it was begun with preventive medical policies, later on the British had to move on to curative medical practices to ensure the health of their own population. The ruling Rajas had a modernizing vision that they believed that modernization of their state would only be possible by introducing western education, western medical care and other public health system in to their own state. The Travancore Rajas viewed western medicine as a representation of modernity. Hence, they wanted to welcome the system

[252] Aparna Nair, op.cit., p.36.

[253] Vaccination establishments simply had not sufficient resources to reach many of the infants who required vaccination on a regular basis. Thus, although the number of those vaccinated increased, the disease was never denied a fresh supply of victims among the new born in areas which relied on the occasional visits of travelling vaccinators. Mark Harrison, "Public Health in British India" op.cit., p.87.

so as to ensure that they always stand for the progress of the state through modernization. In such a context, the attempts taken by the rulers of Travancore deserves appreciation.

Vaccination in the form of a preventive system was partially successful in Travancore until the 1920s. The British attitude towards disease and medicine was a major cause for this.[254] While the British wanted to concentrate more on their own subject, particularly the military personnel, they had never paid sufficient attention to smallpox as a virulent epidemic disease encompassing the whole sections of the population of Travancore. For the British, Jennerian vaccination was the panacea to prevent the disease.[255] At the same time, their policy in medical systems began to turn towards curative medicines. As a part of it more hospitals and dispensaries along with asylums for both insane and lepers were established. It naturally made them pay insufficient attention towards such epidemics like smallpox, where contagion was the main threat to the British because it could not be cured but only prevented.

Curative medicine also created much interest for the ruling Rajas of Travancore during the colonial period. Even one of the Rajas had attained a degree in Western medicine and started practicing under the guidance of a British doctor in Travancore. Hence the Travancore government showed much enthusiasm in disseminating curative medical practices of the western origin. Numerous hospitals were built in different parts of the state (the next chapter would deal in detail regarding these medical institutions). It was nothing but the beginning of the transformation of western medicine from preventive medicine to curative medicine.

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254 In the early decades of the nineteenth century, vaccination stood in the forefront British attempts to promote Western medicine in India. By the second half of the century, however, despite the considerable expansion of vaccination that was taking place, it was being seen more routine, even menial, terms. This view was supported by a strong conviction that the vaccinators were an inappropriate instrument for the dissemination of western medical and sanitary ideas. For more details see, David Arnold, "Colonizing the Body", op.cit., p.147

255 The only large scale intervention for which there had been some enthusiasm was smallpox vaccination using the Jennerian cowpox method. It was the only tried and tested prophylactic; a symbol of the efficacy of western medicine, and Britain's benevolent governance. The challenge was how to convey this message to the intended beneficiaries. Radhika Ramasubban, 'Public health in Modern India', in Milton Lewis and Kerrie L. Macpherson,(ed.), *Public Health in Asia and Pacific, Historical and Comparative Perspectives*, Rutledge, New York, 2007, p.92.

Chapter 3

Towards Institutionalization: the Medical Institutions in Travancore.

The transit from preventive medicine to curative medicine in Travancore can be considered as a part of the process of promoting Western medicine to legitimate and extend the power of the British paramountcy as well as the princely supremacy over the population of Travancore. British medical officials were confident of Western medicines' efficacy a treating diseases and of the need to promote the system. However, most of the medical institutions were founded through Indian initiatives and with Indian funding.

According to David Arnold, it was the participation of the Indian practitioners that diminished the perceived foreignness of western medicine.[256] Their presence at hospitals and dispensaries accounted for the increase in the numbers availing of these facilities. Reduction in smallpox mortality and the success of the compulsory Vaccination Act, introduced in 1877, was due to Indian doctors whom the government used as intermediaries to promote the campaign. As the number of diseases increased, there was a necessity for the British authorities to go beyond mere smallpox vaccination process.

As a result, a large number of hospitals and dispensaries for the purpose of the introduction of curative medicine were built across India. One of the important reasons to create hospitals in the colonies was to stem the loss of manpower from diseases.[257] This process was much easier for the British in the Princely states, particularly in Travancore and Mysore, as the ruling Rajas gave all kinds of patronage to western medicine. The relationship between the Resident and their wives with the ruling Rajas and their wives made it easier for the British to accomplish such tasks in Travancore. It is significant that not only imperial interests but also the desire to learn

[256] David Arnold, "Colonizing the Body", op.cit., p.294.

[257] Mark Harrison, 'Introduction', in Mark Harrison, Margaret Jones and Helen Sweet (eds.), *From Western Medicine to Global Medicine: the Hospital beyond the West*, Orient Black-Swan, Hyderabad, 2009, p.7.

on the part of Indians, led to the promotion of Western medicine.[258] Medical education made gradual progress, Indian doctors founding scholarships and initiating the opening of courses to women. Western medical techniques were accepted particularly where the results were effective but suspicion remained.

Historiography

Scholars have come out with various observations regarding the beginning of hospitals and dispensary systems for promoting Western medicine. In many of the countries, hospitals were established and they began to develop within a colonial framework, which in some cases provided very different structures of funding and administration, as well as a more complex professional hierarchy affected by notions of race.[259] There is no doubting the explicitly colonial origins of western (or "allopathic") medicine in India. Its introduction and dissemination was an outgrowth of the trading activities, and subsequent military and political expansion, of the English East India Company.[260]

In peacetime, IMS officers were employed in a wide range of civilian as well as military duties: they ran hospitals, supervised jails, and presided over provincial sanitation and vaccination departments. This military nexus had far reaching consequences for the nature of state medicine and public health in India. For much of the 19th century, the army (supplemented by the jails) was the primary site of clinical observation and the main source of medical statistics.[261]

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258 For instance, in the Princely Travancore, one of the ruling Rajas had himself shown interest in studying western medicine. Rama Varma, also known as Maharaja Swathi Thirunal, (1813 – 1846) was one of the most accomplished and enlightened rulers of the illustrious royal house of Travancore. With his faith in the western system of medicine, he started getting training in western medicine from his Palace Doctor and later he opened a Charity Hospital at Trivandrum and appointed the Palace Physician and himself as its Superintendent. For details, see, TAR for various years, and also G V Subrahmani Aiyya, *A Short History of the Medical Institutions in Travancore,1811-1915*,Government Press ,Government of Travancore,Trivandrum,1917,p.6

259 Mark Harrison, "Introduction",op.cit.,p.2

260 By the early 1700s, as imperial rivalry between the British and French East India companies intensified, some of the already built small hospitals were enlarged and supplemented by separate institutions run by the armed forces. Thus the first hospital established by the English East India Company in India opened in Madras in 1664, Bombay in 1676, and Calcutta in 1707. The creation of Hospitals overseas was seen as essential to the morale of men working and fighting far from their home, as had been recognized for some times in Europe itself. Ibid., pp-7-8.

261 David Arnold argues that without the service of the Officers of the Indian Medical Service (IMS), it would not have been possible for the State to run hospitals and dispensaries in India. He further

One of the main reasons, according to Mark Harrison, for the growth of medical institutions such as hospitals was the military consideration of the British in India. The need for such hospitals was acute, since sickness among the European troops in India remained extremely high until the end of the 19th century at least by comparison with regiments stationed in Britain.[262]

Western medicine was at first dispensed by British doctors using Indian assistance as intermediaries. They began their careers in middle level positions in government services on low salaries; and consequently most of them moved to more lucrative private practices either in the city or in different parts of the region. Their presence at hospitals and dispensaries made Indians avail of these facilities and they played a vital role in promoting smallpox vaccination. Separate departments were established for smallpox vaccination in the newly built hospitals.

With their understanding of local customs and beliefs, they were more effective in promoting the new system of medicine than their British counterparts. Some of them successfully tried a combination of western and Indian remedies. The British looked to Indians to finance hospitals and dispensaries. Arnold has attributed this partly to a similar practice in Britain, where private philanthropy funded hospitals, dispensaries and medical education, and partly to the narrow view that the British had of their own responsibility for the health and welfare of Indians.[263] What is most significant is the Indian initiative in the establishment and in the extensive funding of these institutions.

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argues that the growing number of hospitals and dispensaries, many of them founded by municipal authorities or India philanthropists, improved urban access and diluted the alien appearance of western medicine, a trend further exemplified by increasing Indian participation. Even the IMS, once a staunch stronghold of European employment, was gradually Indianised…David Arnold, 'The Rise of Western Medicine in India', *The Lancet*, Vo.348, Issue.9034, pp.1075-78.

[262] Harrison further argues that if the high incidence of diseases such as dysentery and malaria provided the main stimulus to the provisions of hospitals for Europeans, other considerations were more evident in provisions made for Indian soldiers or 'sepoys', who constituted the majority of the company's troops. Mark Harrison, 'Public Health and Medicine in British India: an Assessment of the British Contribution', Paper presented at the *Liverpool Medical History Society*, Liverpool, 5 March 1998, p.1.

[263] Mridula Ramanna, 'Indian Attitude towards Western medicine: Bombay, A Case Study', *Indian Historical Review*, January 2000, Sage Publications, New Delhi, p.50.

Mridula Ramanna has made convincing observations in this regard. She feels that this could be regarded as an indication of the extent of the acceptance of the Western medicine, the patient profile and the kinds of complaints for which they went to these institutions provide interesting insights for an understanding of Indian attitudes.[264] Hospitals were considered mainly for surgeries. Early colonial hospitals were primarily for the use of Europeans. Even where growing numbers of indigenous people found employment with Europeans — as in the massive armies of the English East India Company — medical care was normally provided outside of hospitals and by indigenous practitioners.[265]

Establishment of dispensaries and the presence of Indian doctors in these dispensaries increased the confidence of the Indian patients and brought more of them to the institutions. Smallpox vaccinations, minor surgical operations and even post-mortems were performed at the dispensaries. While the initial endowments to found dispensaries were made by donors, it was expected that government would pay the salaries of the doctors working in them. Government grants to dispensaries were made and renewed annually.

The number of people going to dispensaries seeking medical expertise did rise. But when the government introduced a fee system from 1872 on the justification that medical advice given gratis became a charity and that the objective of training Indian doctors was that they would practice among their countrymen, there was, for a brief while, a fall in attendance. The Indian medical department was confident that European medicine and surgery were rising in public estimation and there were a few more people every year, who would prefer to go to a dispensary or civil hospital. Those in charge of dispensaries, in addition to dispensing medicines, prepared half yearly reports on inpatients and outpatients categorized according to gender and community with data on the "medical topography i.e., the description of the arrangement of streets, houses, drainage, water supply, kind and season of crops, nature of soil, presence or not of rivers, lakes, and tanks, meteorological observations and information on diseases.

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[264] Mridula Ramanna, "Western Medicine and Public Health", op.cit., p.51.

[265] Mark Harrison, "Introduction",op.cit.,pp.11-12

This information was required to disseminate information on the benefits of vaccination. "Dispensaries were perceived as the means of rendering the blessing of the improved European art of healing more accessible to the people of this country."[266] Patients went to dispensaries mainly for lithotomy, fever, ague, and syphilis, while children were brought in with anaemia and scrofula. Women and children seemed to have more readily come to dispensaries than to hospitals because a hospital stay involved more exposure to possible pollution than by visits to a dispensary.

Separate hospitals were not established as there was negligence towards the women's health in the colonies. But this gendered difference in access to medical care was explained by the reluctance of the women to submit to the attentions of a male doctor, for there were few hospitals in India or any other colony catering specially for women or staffed by women doctors.[267] While this was almost true in the case of princely Travancore, at the end of the nineteenth century initiatives were there from the part of the princely rulers as well as the British authority to establish separate hospitals for women in the state. Later, from the early 20th century, the medical care for women and children began to receive more attention in the colonies, in line with the development in the west. Throughout the British colonies, there was a concerted effort to improve the welfare of women and children through a variety of measures ranging from the regulation of midwifery, through to the provision of specialist health units and hospitals.[268]

Specialist institutions gradually began to get more attention from the British authorities. Among those, one type of special medical institution that was comparatively well served in account of medicine in the European colonies was the Lunatic asylums. Mental illness was often thought to result from an inability to adapt to modernity, while insurgency was sometimes viewed as the expression of African mental pathology.[269] James Mills has opined that asylums were merely places of

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[266] G V Subrhamani Aiyya, op.cit., p.7.

[267] Mark Harrison, "Introduction", op.cit., p.12.

[268] Ibid., p.13.

[269] Ibid.,p19.

detention, in which socially disruptive elements were contained.[270] The first asylum in India, according to Seema Alavi, was intended to contain disruptive soldiers and possibly those who had contracted veneral diseases, to prevent them from spreading infections around the cantonment.[271] Medical institutions of such various types have not received any scholarly attention in colonial Kerala in general and Travancore in particular until recently. The administrative apparatus has recorded the details of the functioning of such institutions as narrative records.

Medical Institutions in Travancore

Any initiative to popularize western medical care in Travancore was started by Her Highness Rani Gowri Lakshmi Bhai.[272] She always had a vision that providing European medicine along with English education would cater to her needs to transform her state into a modern and progressive one.[273] Besides introducing vaccination for the elimination of smallpox, opening of a number of hospitals and dispensaries in various places, she believed, would help her subjects to get access to the benefits of Western medicine. After her accession into throne, she wisely vested

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270 James Mills, *Madness, Cannabis and Colonialism: The 'Native Only' Lunatic Asylums of British India*, Palgrave-Macmillan, New York, 2000, p.11.

271 Mark Harrison, "Introduction", op.cit., p.21.

272 Rani Ayilyam Tirunal Gowri Lakshmi Bhai (1791-1814) was the ruler of the Princely State of Travancore from 1810 till 1813 until her death due to smallpox. She was the only princess of Travancore to have reigned in her own right for two years before becoming a Regent. She was born in the year 1791 to Princess Attham Thirunal, Rani of Attingal of the Travancore Royal Family. Maharajah Bala Rama Varma, during whose reign Travancore faced a number of internal and external threats and crisis, including the most important revolt of Velu Thampi, died in 1811. At the death of the Maharajah, Gowri Lakshmi Bhai, the senior Rani of Attingal, was only twenty. There were no eligible male members in the family which meant she would have to become the ruler and rule it as Regent till an heir would be born to her. However her accession was not easy because a member from the Mavelikkara branch of Royal family, a distant cousin, Prince Kerala Varma, staked a claim to the throne. The Princess placed in the hands of the British Resident Col. John Munro, one of the most loved British Residents in Travancore, a document asserting her claim and proving the claim of Kerala Varma untenable. This irked Kerala Varma who resorted to tact and tried to convince the Princess to give up her claim. However the Resident sided with Gowri Lakshmi Bhai and she was made the Regent Rani of Travancore in 1811.

273 Modernization was by no means synonymous with westernization in many countries. A bifurcated approach to modernization could be seen in some of the Indian princely states also. (as has been discussed in detail in the 1st Chapter) However in Travancore, steps were taken by the ruling Regent Rani to modernize their subject with new notions of hygiene and sanitation. And it is possible to conceive of the dissemination of western medicine through the institutions of the hospitals, a process of accommodation with non-western modernities and traditions. For more details see, Mark Harrison, "Introduction", op.cit., pp1-3.

her powers in the hands of the Resident Colonel John Munro. He acted as the main adviser to the Rani. Hence, decisions were taken in consultation with the Resident whose presence in the palace helped her to move ahead with her modernizing vision. Decisions regarding the dissemination of Western medicine were mostly taken either due to the persuasion or due to the coercion of the Resident, along with the Rani's vision to modernize, in Travancore.

Thus the opening of the first dispensary, namely 'Palace Dispensary' became milestone during her reign in Travancore. 'Palace Dispensary'[274] was opened in the year 1812-13. Dissemination of smallpox vaccination was the main aim of opening such a dispensary. Dr. Proven was in charge of the dispensary as he was appointed as the Durbar Physician[275] of Travancore. As there was much inconvenience in getting the service of Dr. Proven from Quilon, when required in the Palace, Her Highness, in 1818, after some correspondence with the British Resident, insisted that the service of Dr. Proven be devoted entirely to the Palace.[276] Because of this inconvenience, he was not able to spend the entire time in the palace dispensary, and hence the royal authority decided to appoint another European doctor as an assistant to Dr. Proven. In 1816, Mr. James Ross was appointed as an assistant to Dr. Proven. Providing smallpox vaccination to the palace members, military men, jail inmates etc. were the main duties of the dispensary during that period.

In 1816, another dispensary namely 'Charity Dispensary' was opened for the public at Thycad. Mr. James Ross was in charge of this dispensary. As the name itself indicates, the main purpose of the dispensary was to provide easy access to Western medicine for the public, free of cost. Unlike in other places, in Travancore charitable dispensaries were funded mainly by the government. For instance, in Bombay, most

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[274] According to the Report on the Administration of Travancore, in view to better distinguish Hospitals from Dispensaries, it was during the year that all institutions in which accommodation for in-Patients was provided and for which diets were sanctioned permanently are 'Hospitals' and those without such accommodation and diets, are dispensaries. TAR for various years, Government of Travancore, Trivandrum.

[275] Durbar Physician was an ordinary official staff in the Indian Medical Service (here onwards IMS). The state government seek the service of this officer usually for a tenure of five years to render service of European Medical Care to the members of the Royal family. However, in Travancore, Durbar Physician was also in charge of providing medical care to the staff of the Residency and other institutions situated at Quilon, looking after the affairs of the medical department etc.

[276] G V Subramani Aiya , op.cit., p.2

dispensaries were financed by Indians and run by Indian doctors and medical assistants. There were charitable and government dispensaries in Bombay.[277]

In 1818, other small dispensaries for the palace and a separate one for the Nair Brigade men were established. The dispensary was necessary for the palace members who had been suffering from various ailments. Affliction of smallpox was a great threat to the royal family during that period. Dr. Proven thus had the supervision of the medical as well as the vaccination departments. This apparently shows the enthusiasm of the royal family to cater the needs of western medical care in Travancore. Thus, by 1820, there were total three main dispensaries of western medicine in Travancore. This number, however, was very much high compared to other princely states and Madras presidency in that particular year.

After His Highness Rama Varma became the next Raja, he wanted to extend the access of Western medicine to every section of his subjects. He therefore established a 'Charity Hospital' near the Residency at Trivandrum in 1837 under the supervision of the palace physician. While most of the early colonial hospitals tended to have an ephemerical existence in India, due to the flimsy structures, which were prone to collapse during heavy rains or high winds, the hospitals built in Travancore comparatively had a better condition. This was particularly because of the enthusiasm shown by the ruling rajas in funding these hospitals.

Apparently, the 'charity dispensary' opened in 1817 was located within the premises of the Charity Hospital, Thycad. In 1838, this hospital was placed under the supervision of the Residency Surgeon. Newly arrived assistant surgeons, thus had a fine field for the study of diseases peculiar to India in the persons of the wretched occupants of the planks and trestles which formed the bedsteads.[278] Such opportunities prompted the colonial practitioners to make important contributions to the pathology of diseases such as fevers and hepatitis. Dr. Eaton was the Durbar Physician during this period. Dr. Eaton was replaced by Dr. Patterson as the next Durbar Physician in the year 1845.

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277 Mridula Ramanna, "Indian Attitude towards Western medicine",op.cit.,p.51

278 Mridula Ramanna, "Western Medicine and Public Health", op.cit.,p.67

Being attracted to the novelty of western medicine, the ruling Raja had a keen interest in studying and practicing it during this period. With the help of the Durbar physician, he started learning the basics of western medicine along with mastery of basic sciences. Dr. Brown, the Durbar physician always supported the Raja's willingness to study western medicine. But unfortunately, Dr. Brown had to leave India before the Raja could attain a mastery over the subject. Having acquired basic knowledge in human anatomy and other basic sciences, the Raja himself started attending ordinary cases at the Royal Palace.[279] This initiative from the Travancore raja helped to improve the confidence of natives in western medicine. As Arnold argues "it was the participation of the Indians practitioners that diminished the perceived foreignness of Western medicine".[280]

A dispensary was later opened at his palace as a part of extending his service to the public also. Later a separate building was constructed due to the insufficient space in his palace dispensary. While the British authorities concentrated in providing medical attention to their army and other personnel, the ruling rajas of Travancore wanted to disseminate it among the native population. It was mainly due to charity as the pivot that administration of Western medicine was carried out by the rajas. Necessary facilities were also done for treating admitted patients in any emergency. The Raja also trained some of his attendants to perform the duties of dressers. His Highness' knowledge of the profession and the successful result achieved became so widely known that Hindus from long distances came to His Highness hospital for treatment.[281]

Mostly, the Hindu patients preferred this dispensary mainly because while they got admitted, they were not only given free consultation but also food and clothing free of coast. While they were discharged, these persons were blessed with gifts also. This might be mainly for the attraction of more Hindu patients towards western medical care, especially the upper caste Hindus. Another reason for such an initiative might be due to the presence of Christian missionaries in medical care. The

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279 Ibid.,p.4

280 David Arnold, "Colonizing the Body", op.cit., p.294.

281 G V Subramani Aiya, op.cit., p.4.

government always had to compete with these agencies in providing western medical care to the people. While the government dispensaries considered caste as a criterion for the admission to the dispensaries, the Missionaries successfully treated the lower caste people in their own institutions.

It was surprising that the Numboodiri Brahmins, who had an aversion towards Western medicine mainly because of their belief that all medicinal compositions contained spirit, for the first time, began to visit the Rajas's dispensary for treatment. This hospital was also known as the *Elayaraja's Dispensary*. It was well functioning till the opening of a new dispensary near the Fort in Trivandrum.

Dr. Patterson retired in 1853 and Dr. Waring became the durbar physician after him. At the end of 1860, there were a total seven medical institutions providing European medical care in Travancore. In 1860, Dr. H.M. Ross was appointed as the durbar physician.[282] The medical department made rapid progress during his tenure. The Diwan T. Madhava Rao and Sheshaiah Sastri had rendered valuable administrative services during the reign of His Highness Rama Varma in Travancore. Within 12 years of His Highnesses reign, several medical institutions had flourished in Travancore. The present General Hospital was a great achievement of this period.

In order to expand the number of hospitals, the ruling Raja himself, in 1866, sanctioned an additional annual expenditure of Rs.20,000 with which to establish 12 more hospitals in different parts of the state and place the existing ones on a better footing.[283] Three of these were to be of a high standard and under the charge of trained apothecaries for a monthly salary of Rs. 150 and the remaining nine under the charge of dressers. The sanctioning of an additional annual expenditure fund helped improve the filthy conditions of many of the dispensaries in Travancore.

The Travancore government also demanded the Madras Government to permit the medical officer attached to the subsidiary force at Quilon to take charge of the government hospital, in addition to his duties of the regiment, on an allowance of Rs. 100; permission for this was accordingly granted.

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[282] TAR for various years; V. Nagam Aiya, Vol.II, op.cit., p.525.

[283] Ibid.,pp.537-38

In the year 1869 itself, the Government hospitals treated 14,734 patients in total, which was further increased to 33,666 in the year 1870. This meant that within a year, nearly 19,000 increases in the number of patients treated.[284] During the period 1870-71, the number of patients treated was further increased to 46,019. This is to be noted that within that period, no additional dispensary or hospital was established by the Government.[285] Nevertheless, the number of patients visiting government hospitals and dispensaries kept on increasing. This indicates that the native's faith in western medicine was gradually increasing.

Thus at the end of 1885, there were 31 medical institutions in Travancore. It was in 1887 that the Fort Dispensary was opened. This was particularly intended to provide treatment in Western medicine for the women living in and around the Fort. Thus initiatives were also taken by the Travancore Government for the special treatment of women patients. This movement can be traced back to the activities of American and British women missionaries in India from the 1860s onwards and the establishment in 1885 of the Dufferin Fund (named after the Vicereine of the day) for the employment of women doctors and creation of single-sex hospitals and dispensaries. Controversy surrounds the nature and achievement of the Dufferin fund, but whatever its political agenda and practical shortcomings, it is difficult not to see it as an important step towards the greater involvement in western medicine of Indian women as both doctors and patients.[286]

In addition to the hospitals located in the capital, there were also hospitals in Quilon and Alleppey, and dressers were located at other principal towns in the state and at places where large bodies of men were employed as in Chertala, Nagercoil, Chencotta, the Peerumade Ghats works, and the Southern canal works.[287] During this time, the medical department of Travancore consisted of the following staffs.

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284 TAR for the year 1869-70, Government of Travancore, Trivandrum, p.92.

285 Ibid., p.92.

286 David Arnold, "Rise of Western Medicine", op.cit., p.1077; also see, Geraldine Forbes, "Women in Colonial India", op.cit., pp.85-86.

287 G V Subramani Aiya,op.cit.,p.10

Name of the post	Number
Apothecaries	2
Assistant Apothecaries	2
First Class Dressers	4
Second Class Dressers	4
Medical Pupils	14
Matron (for Lying in Hospital)	1

Table.7: ***The Medical Department of Travancore, 1885***[288]

During that period grant-in-aid system was also started. Financial grants were made to some private medical institutions located at different places like Nagercoil, Alleppey, Magnamay near Verapoly and Anjenad. An annual grant was also sanctioned for the maintenance of the local fund dispensary at Bodinaikanur in British territory which afforded medical aid for the workers and others working in the Travancore plantations near the boundary.[289] Another innovative venture of that period was the opening of a veterinary hospital near Chackay in 1887. Thus under the reign of His Highness Vissakham Thirunal Rama Varma, several advancements were made in the field of western medicine, and it further aided the growth of popular belief in the efficacy of western medicine.

By 1889-90, Rs.1,48,000 had been spent annually on maintaining and constructing new medical institutions. In 1869, a medical school was opened which conducted a four year training program for medical subordinates.[290] The school then closed in 1890 as the government realised that it was cheaper to recruit students from the Madras Medical College rather than providing training at a heavy expense. The

[288] TAR for the year 1885,Government of Travancore, Trivandrum

[289] Ibid., p.10.

[290] TAR for the year 1869-70, Government of Travancore, Trivandrum, p.92.

salaries of medical subordinates were increased to improve the quality of work and of the men who entered the profession.[291]

The opening of the Victoria Medical School and Hospital in 1889 at Quilon was an important achievement during this period. It was mainly aimed at providing maternal medical care and providing trained mid-wives to the state institutions.[292] A teaching unit for auxiliary midwifery training is attached to it. A family planning clinic was also set up there to impart awareness regarding family planning in the state. More details will be discussed in a separate section regarding this hospital.

After Dr. Houston, Lieut. Col. Esmonde White was appointed as the Durbar physician. It was during his time that a Vaccine Depot was established in Trivandrum to preserve the cowpox vaccine against smallpox. In the same period, Mr. M N Subramani Aiya, a Travancore Government sponsored student having completed his degree of M B & C M, was admitted in the service there in Trivandrum. Thus, Indian allopathic doctors employed by the sanitation and public health departments as Health Officers played a vital role in transforming the people's perception about disease and their 'proper' treatment.[293]

After the establishment of the Vaccine Depot, the Superintendent of Vaccination was deputed to Madras in 1891, to study the method of preserving vaccine lymph. Hitherto, the duties of the chemical examiners were performed by one apothecary under the direction of the durbar physician. In this year, a separate department was organized for the first time and was placed in charge of an assistant surgeon.[294] In many of the dispensaries, beds and dieting were also provided for a small number of poor in-patients.

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[291] Arien Yechouran, *A Social History of Public Health and Medicine in Kerala*, Unpublished Dissertation submitted to Harvard University for the requirements of the fulfillment of the award of the Degree of Bachelor of Arts, Harvard, p.76.

[292] By the opening of a separate Medical School at Quilon, the Travancore Government wanted to assure the availability of qualified and trained Midwives to the Hospitals and Dispensaries in the State. Besides this, it was an innovative effort to improve the facility of western medical care to women in Travancore. TAR for the year 1889-90, Government of Travancore, Trivandrum.

[293] Madhuri Sharma, *Indigenous and Western Medicine in Colonial India*, Foundation Books, New Delhi, 2012, p.46

[294] G V Subramani Aiya, op.cit., p.11.

In 1896 a separate department was formed amalgamating the already exiting Vaccination Department, Vital Statistics and the Sanitation and placed under the charge of a Sanitary Commissioner. For the convenience of this department, the whole state was divided in to four districts, and an inspector was appointed to each of these districts. One of the important duties assigned to the District Inspector was that he/she had to travel, dispense and convey medical aid to the doors of the villages. This attempt itself is an indication of the state's willingness to impart the benefits of western medicine to the entire population of the state. Hence, the princely rulers became great patrons of the western system of medicine. They viewed it not only as a symbol of charity but also an attempt to modernize the people of Travancore.

In 1896, the General Hospital at Trivandrum was also reorganized so as to ensure all facilities to the people. As a part of it, the strength of the staff was increased further. Assistant surgeon Dr. Poonen was given charge of the medical department. Three additional apothecaries were also appointed so as to ensure full-fledged service to the patients. These apothecaries were appointed on a permanent basis.

In Trivandrum, a Contagious Disease Hospital was sanctioned in the year 1897. Measures were taken to select a suitable site for the construction of the same immediately after its sanctioning.[295] Five assistant apothecaries, all graduated in medicine from the Madras University, and fifteen hospital assistants were also newly appointed in that particular year. Of the hospital assistants, two were posted to the Military department for the duty in the Brigade Hospital, and 12 were given duties at the Civil Medical Department and sent to the most important outstation hospitals, and one was especially entertained temporarily for the charge of the dispensary established at Pachipara in connection with the Kotyar Project Works.[296] Weekly dispensaries were opened at Thalavadi and Erattupettah. A bi-weekly dispensary was opened at Ettumanur in the same year.[297]

[295] TAR for the year 1896-97, Government of Travancore, Trivandrum, p.147.

[296] Ibid., p.147.

[297] Ibid., p.147.

Serial No.	Name of the Institution	Number of Patients treated		Increase	Decrease
		1896-97	1897-98		
1	General Hospital	16,104	19,959	3,855	Nil
2	Maternity Hospital	630	917	287	Nil
3	Thycad Hospital	10,550	11,281	731	Nil
4	Lunatic Asylum	---	100	100	Nil
5	Leper Asylum	---	169	169	Nil
6	Women and Children's Hospital	---	6,343	6,343	Nil
7	Palace Dispensary	2,960	3,178	218	Nil
8	Palace sub -Dispensary	2,765	3,640	875	Nil
9	Vadakke-Kottayam Dispensary	815	1,564	749	Nil
10	Fort Dispensary	10,339	12,006	1,667	Nil
11	Huzur Katcherry Dispensary	----	4,450	4,450	Nil
12	District Dispensary, Chirayankil	5,976	5,406	----	570
13	District Hospital, Quilon	11,609	11,804	195	Nil
14	Victoria Jubilee Mission Hospital, Quilon	583	542	---	41
15	District Hospital, Mavelikkara	12,162	12,317	155	Nil

16	District Dispensary, Kozhanjery	6,716	10,199	3,483	Nil
17	District Hospital,Thiruvalla	10,740	8,637	---	2,103
18	District Dispensary, Changanacherry	11,628	11,829	201	Nil
19	District Hospital, Kottayam	8,458	10,139	1,681	Nil
20	District Hospital, Alleppey	17,907	23,811	15,904	Nil
21	District Dispensary, Vaikom	5,886	4,745	---	1,141
22	District Hospital, Cherthala	7,375	8,385	1,010	Nil
23	District Hospital, Aluva	4,701	11,605	6,904	Nil
24	District Hospital, Paravur	5,181	6,010	829	Nil
25	District Hospital, Muvattupuzha	4,865	4,081	---	784
26	District Hospital, Thodupuzha	10,708	4,603	---	6,105
27	District Hospital, Lalam	9,472	10,216	744	Nil
28	District Hospital, Kanjirapally	11,569	7,302	---	4267
29	District Dispensary, Peerumedu	5,226	3,871	---	1,355
30	District Hospital, Chenkottai	4,063	4,152	89	Nil

31	District Hospital, Punalur	4,094	4,513	419	Nil
32	District Dispensary, Kottarakkara	3,744	4,195	450	Nil
33	District Dispensary, Nedumangad	4,775	5,744	969	Nil
34	District Dispensary, Pallodu.	---	1,185	1,185	Nil
35	District Hospital, Neyyattinkara	12,847	15,365	2,518	Nil
36	District Hospital, Parassala	3,396	7,906	4,510	Nil
37	P.W. D Hospital, Kulashekharam	11,783	8,687	---	3,096
38	P.W. Dispensary, Pachipara	---	1,472	1,472	Nil
39	District Hospital, Padmanabhapuram	10,492	15,280	4,788	Nil
40	District Dispensary, Kulachel	3,897	3,614	---	283
41	District Hospital, Nagercoil	8,084	10,027	1,943	Nil
42	District Dispensary, Kottaram	3,641	5,261	1,620	Nil
43	Central Jail Hospital, Trivandrum	132	208	76	Nil
44	District Jail Hospital, Quilon	126	162	36	Nil
45	Court Jail Hospital, Quilon	11	7	---	4

46	District Jail Hospital, Alleppey	140	103	---	37
47	District Jail Hospital, Nagarcoil	21	4	---	21
48	District Jail Hospital, Paravur	10	13	3	Nil
49	Weekly, Biweekly Dispensaries and Special Dispensaries	14,792	14,806	14	Nil
	Total	**2,80,973**	**3,21,813**	**60,642**	**16,563**

Table.8: ***Statement of the details of patients treated in various Government medical institutions for the year 1896 &97***[298]

The statement of patients treated in various Government medical institutions itself is an indication of the rapid growth achieved by them in their performance in imparting western medical care to the people. When it treated a total of 2,80,973 patients in the year 1896-97, it increased to a total of 3,21,813 in the year 1897-98. That means within one year about 60,000 more patients were attracted to the Government medical institutions. However, class-wise statement shows that a total of 3,33,199 patients were treated in various classes during this particular period. This can be substantiated by the fact that the exact number of patients treated in some hospitals and dispensaries were unavailable. For instance, the following table illustrates the class wise statement of patients treated for the year 1897-98.[299]

[298] TAR for the year 1896-97, Government of Travancore, Travancore.

[299] TAR for the year 1897-98, Government of Travancore, Trivandrum.

Class	Number treated
Europeans	620
Eurasians	3,410
Hindus	1,06,714
Muslims	19,099
Other Classes	1,77,365
Information not available	25,991
Total	3,33,199

Table.9***: Class wise statement of patients treated in the year 1896-97***[300]

The above statement of patients treated clearly shows that in the government institutions, majority of patients treated were from the Hindu religion. When compared to other sects, Muslims still had an aversion either towards the Western Medical care or towards Government Medical institutions. The reason for this could be many; however, the most probable cause might be their attitude towards western medical care. In 1898, the 'Medical Code' was prepared by Dr. White and it was approved by the government and brought in to force. Major. Thomson became the next durbar physician.

Western medical care, thus, in Travancore made rapid strides in the second half of the 19th century. The number of medical institutions under government control in this category reached beyond fifty in 1900. The following table shows the details of various diseases treated in various government hospitals and dispensaries during the year 1903-04.[301]

[300] Ibid.,p.147

[301] V.Nagam Aiya, Voll.II,op.cit., p.525

Diseases.	Number of Patients treated.
Malaria	79,947
Skin Diseases	55,144
Ulcers	40,808
Diarrhoea	25,935
Dyspepsia	24,805
Dysentery	22,120
Rheumatic diseases	18,065
Worms	35,325

Table.10: ***Diseases and Number of Patients treated in Travancore in the year1903-04***[302]

During that period, a local medical school was established in obtaining qualified and sufficient staff of the lower grades to serve in the medical department. The institution was mainly aimed at not only supplying medical men required for the hospitals but also to bring in to existence a number of private practitioners who would carry the benefits of western medicine in to the interior parts of the moffussils, which were not within easy reach of the state institutions. In 1902, when the term of the school was over, after four years, it was abolished; and it was made mandatory that those who passed out of this school were not eligible to work outside Travancore thereafter.[303]

During this period, apart from providing scholarship to study in India, two Hindu students from Madras University were sent to Europe with government scholarship for the study of medicine in the university of Edinburgh. In 1904, a spacious building for the insane patients at Oolampara was completed and those

[302] TAR for the year 1903-04, Government of Travancore, Trivandrum.

[303] TAR for the year 1902-03, Govenrment of Travancore, Trivandrum.

patients admitted in different hospitals in Trivandrum were shifted to there. Thus, a separate building for the lunatic asylum became a reality in this year.

One of the important aspects of the year 1905 was the Medical Conference held in the Public Offices in Trivandrum. In this conference certain important decisions were taken:

- Extension of the Civil Hospital to provide accommodation for the increasing demand.
- Convert Thycad Hospital in to a Women and Children's Hospital.
- Construct a new Hospital at Oolampara opposite to the leper asylum for the incurables treated in the Thycad Hospital.

In 1906, a separate ophthalmic hospital was opened in the main road near the General Hospital. This was established as a part of the policy of both the British and Travancore government's decision to launch specialty hospitals and dispensaries in Western medicine. This hospital at present occupies an important place in providing treatment for the diseases related to eyes. In that year, 12 Roman Catholic Sisters were recruited for employment in the General Hospital and in the Women and Children's Hospital.

In 1913, a new X-ray section was opened in the General Hospital. A dental section was also opened in the same year. Thus, the activities of the medical department were strengthened annually. Valuable service of the European-trained durbar physician could attribute a lot to the development of curative practices in Western medicine in Travancore during this period. The Travancore Rajas had a clear vision in appointing the durbar physician for the same purpose.

In 1903-04, a total of 6,23,443 patients were treated in various hospitals in Travancore. The General Hospital during this year treated 3,116 in-patients. Next was the Women and Children's Hospital with an in-patient profiles of 1,082. District Hospital at Alleppey treated 35,314 out-patients, this being the highest number that year.[304] The increasing admission of inpatients apparently shows that these hospitals

[304] V Nagam Aiya,Vol.II, op. cit., p.525

were seen not only as curative institutions but more as safe shelters of the indigent Hindus also, in Travancore.[305]

Hospitals	Number of Out-Patients treated
District Hospital , Alleppey	35,314
District Hospital, Quilon	28,621
District Hospital, Nagercoil	28,554
General Hospital, Trivandrum	27,874
Thycad Hospital, Trivandrum	23,174

Table 11: ***Hospitals and Number of out-patients Treated, 1903-04***

Thus by 1906, there were 56 medical institutions in Travancore including 22 hospitals, 20 dispensaries, 4 bi-weekly dispensaries, 6 weekly dispensaries, a Leper Asylum and a Lunatic Asylum, that is, as the Travancore Government claimed, one institution for every 125 square miles and for every 52,715 individuals. The total number of in-patients treated was 17,978, and out patients were 5,05,556. Officers on itinerant duties treated were about 8,000. These officers often had to vaccinate the rural people against smallpox.

A total of 2,901 surgical operations were performed during this period. Thirty four midwives were at work, attending 2,901 cases of labour. In this year 'The Victoria Jubilee Mission Hospital' was made an independent institution from the district hospital and was placed under the charge of a lady assistant surgeon especially for this purpose. A fresh class consisting of eight stipendiary scholars and two

[305] For instance, Mark Harrison argues that hospitals like those established for the poor in Calcutta and Banaras were attracting several thousand inpatients each year by the early 1800s itself. This suggests that the hospitals were seen more as shelters for the indigent than curative institutions, whatever intentions of their founders and physicians. The rising demand for out-patient care was also reflected in the growth of dispensaries in India, which were established by variety of State and private initiatives. Mark Harrison, "Introduction",op.cit.,p.14

volunteers commenced its two years course during the year.[306] This was perhaps done due to the influence and guidelines set up by the Dufferin Fund begun in 1885.

New dispensaries were opened at Kothamangalam, Ettumanur, Chengannur, Adoor and Kayamkulam in the year 1910-11. The total number of in-patients treated in the government institution was 18,022, and out patients was 5,25,323. A total of 27,742 surgical operations were performed, besides 255 post-mortems. During this year, three cases of plague, one at Alleppey and two at Marayoor were reported. It created chaos among the people as there was fear of a plague epidemic. Forty-five midwives were at work attending 3,506 labour cases in that year.[307] Thus, free medical aid and free supply of medicines were made available to the people in all the medical institutions maintained by the government. The policy of the government was to see that proper medical aid was placed within easy reach of all classes of people in the state.[308]

In the year 1921-22, the medical department of Travancore was developed into a full-fledged form. There were total 28 government hospitals and 32 government dispensaries in Travancore.[309] It was perhaps the highest in number compared with other native states in India. In the medical department, six assistant surgeons were engaged in special duties in connection with various epidemics, fairs and festivals and they together had treated 5,129 out-patients in that particular year. Sixty-one midwives were in service attending 5,264 labour cases. The medical department during this year consisted of the following staff members under various titles.[310]

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306 TAR, for the year 1907-08,Government of Travancore, Trivandrum, p.51

307 TAR, for the year 1910-11,Governemnt of Travancore,Trivandrum,p.45

308 *Madras & Mysore State Directory for the Year 1934*, Government of Madras, p.28.

309 In this year total 19,947 in-patients were treated in these government institutions. In the previous year this number was 18,348. An increase of 1,559 patients were recorded in various Government institutions in this year. Total number of out-patients treated in government institutions was 9,6,0291(4,21,081 were Men and 2,94,414 were Women, and 2,64,743 Children). It was 9,21,822 in the previous year. That means an increase of 38,469 patients recorded in this year. In-patients beds have been increased from 1,647 in to 1685.Total 41,786 surgical operations were performed in this year… TAR, for the year 1921-22,Government of Travancore,Trivandrum,pp.83-84.

310 Ibid., p.83

Titles	Numbers in Services
Surgeons	3
Deputy Surgeons	19
Assistant Surgeons (Senior)	39
Assistant Surgeons (Junior)	2
Apothecaries	4
Sub-Assistant Surgeons	5
Sub-Assistant Surgeons (Junior)	45
Temporary Sub-Assistant Surgeon	1

Table 12: ***The Medical Department of Travancore, 1921-22***[311]

The Medical department in the year 1923-24 was further expanded with a number of additions and innovations. There were 29 government hospitals and 32 dispensaries in Travancore .A new dispensary was opened at Pathanamthitta.[312] Nine medical officers of the medical department were on special duties related to epidemics during fairs and festivals and they treated 4,609 patients during that year.[313] Sixty-seven midwives were in service engaging 6,666 labour cases in this year. A fresh batch of midwifery was started in the 'Victoria Jubilee Mission Hospital' at Quilon consisting eight stipendiary students and 10 non-stipendiary students.

[311] TAR for the year 1922-23, Government of Travancore, Trivandrum,p.87.

[312] There were 4 Surgeons and 17 Deputy Surgeons in service during this particular year. The total number of in-Patients treated in the Government Institutions was 22,206 by having an increase of 1,372. Total 9,69,184 out- Patients were recorded having a decrease of 4,204 in number. Of the total number of patients treated (i.e.9,91,390), 1,41,719 were men and 9,69,184 were women and 2,76,882 were children. The inpatients were provided with a facility of 1,696 beds. More than 60% of the in-patients were cured, as per the administration report, for the particular year. Total 45,554 surgical operations were performed in this year. TAR, for the year 1923-24, Government of Travancore,Trivandrum,pp.83-84

[313] Ibid.,83

Number of hospitals remained unchanged in the following administrative year also. For instance in the year 1924-25, there were 29 government hospitals and 32 government dispensaries, excluding the Contagious Disease Hospital along with the Mental Hospital and the Leper Asylum, in Travancore. However the medical department functioned in a more advanced manner to render medical care to whole sections of people. The Contagious Disease's Hospital was well functioning during this year. There were 4 surgeons anod 17 deputy surgeons in service during this particular year.[314] A midwifery class of one year duration was started in the Women's and Children's Hospital so as to ensure quality training in midwifery to the women student trainees in Travancore as well as outside Travancore.

The year 1925-26 was a milestone in the history of the Medical Department in Travancore. In this year, the medical department under the charge of the Durbar physician was held in abeyance and then it was placed as an experimental measure under a Board termed "The Administrative Board, Medical Service,"[315] consisting of three members.

1. An Inspecting Medical Officer

2. A Senior Surgeon (Women Medical Service)

3. A Non-official member belonging to the medical profession.

These measures were executed in accordance with the regulations of the Medical Department of the British authority in India. As a part of the policy pursued

[314] In this year, total 11,10,579 patients were recorded in Government Institutions; of them 4,63,115 were Men and 307096 were Women consisting of 23,165 In-Patients and 1087432 Out-Patients. Total 1,744 beds were made available in the hospitals for In-Patients. About 61% of Inpatients were recorded cured. Total 47,336 surgical operations were performed in this year. Eleven Medical officers of different categories were engaged in duties in connection with epidemics, fairs and festivals. They treated 9,965 cases during their duties. 67 midwives were in service attending 7,528 labour cases in that particular year…TAR, for the year1924-25, Government of Travancore, Trivandrum, pp.68-69

[315] The office of the Board was placed in charge of a whole-time Secretary who was not a medical man. It was mainly because the Durbar Physician, whose constant presence at the capital was necessary, did not find sufficient time for frequent and thorough inspections of moffussil hospitals and dispensaries to criticize them and correct shortcomings. Neither had he sufficient opportunity to study local needs in the matter of medical relief. The need for organizing medical aid to women and children in a more extended form was keenly felt. It was to remedy these defects in the old administration of the department that the Board of such a kind was constituted. TAR for the year 1925-26,Government of Travancore, Trivandrum, pp.121-22

under charity, free medical service and free supply of medicines were placed in all government medical institutions. Thus there were total 73 medical institutions in Travancore in this year. In addition, seventeen grant-in-aid dispensaries were also there.[316]

Yet another important activity undertaken by the Medical Department in that year was the Child Welfare program. It was aimed at particularly reducing the child mortality rate in the state. As a part of this, midwives in various Government Hospitals and Dispensaries had been instructed to do more health and welfare work by visiting houses, and by giving advice to expectant mothers and tending new born children.

In lieu with this vision, a fresh batch of 14 midwifery students (8-stipendiary, 6 non-stipendiaries) were admitted in the Victoria Jubilee Mission Hospital, Quilon. A total of 69 midwives were in service in that particular year and they had attended 7,794 cases.

Some of the surgeons on duty were allowed to take leave for continuing their higher studies outside India, especially in European countries. Assistant surgeon S. John, who was in the service, was given a year's study leave to proceed to Great Britain and specialize in the diseases of heart and lungs.[317] The system of granting of capitation fee for achieving admission in the Missionary Medical School, Vellore, Tamil Nadu came in to existence from that year onwards. As per this system Rs.500 per year had been granted for a period of four years. It was mainly because the government had noticed that a number of women students from Travancore were seeking admission in the medical school at Vellore. The grant was allowed on an agreement that at least two students from the state be admitted to the school every

316 During this particular year, there were four surgeons and 17 deputy surgeons on duty. In the office of the Medical Department, eight were holding European degrees or diplomas and 46 were holding Indian University degrees or diplomas. There were thirteen women in the medical service. Among them, two held European degrees and two held Indian University Degrees. Total 2,224 beds were made available for the in-patients in various government institutions. Total 31,691 in- patients were treated in various government institutions. 13,53,799 out- patients were also treated. The in-patient mortality rate was 4.04%.Total 48,466 surgical operations were performed in that year…Ibid., pp.122-23

317 Ibid.,p.123

year. One stipendiary student was continuing her M.B.B.S in the Madras Medical College also.

As the number of leprosy patients had been increasing in central Travancore, the need for the adoption of effective measures to detect early cases and register suitable treatment in dispensaries and providing injections was accordingly introduced in three centers in central Travancore-Kayamkulam, Karunagappalli and Chavara.

Dr. K Raman Thampi was appointed as the inspecting officer and Mrs. M. Poonen Lukose was appointed as the senior surgeon in the Women's Medical Service in 1927. Apart from this, the Medical Board constituted non-official members, Dr. W.A Noble MD, Dr. A.C Rendle MD, from 'Salvation Army'. The Board convened 45 times in this particular year.[318] New dispensaries were opened during this period at different places like Piravam, Valiyatura, and Ramapuram. A special dispensary for fever was opened temporarily at Perumkadavila and after a few months it was made a permanent dispensary.

An interesting aspect was that in all these places the local people showed more enthusiasm in welcoming such institutions by voluntarily providing furniture and other equipments necessary for the dispensary. This shows the increasing popular acceptance of western medical care among the natives of Travancore.

As the government felt popular acceptance and cooperation, more dispensaries were sanctioned at Kuruvilangad, Pampadi, Kalavoor, Vizhinjam, Varkala and Ayikudi.[319] An evening dispensary was opened at Karupangadi and a bi-weekly dispensary was opened at Malayattur. [320]

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[318] TAR, for the year 1926-27, Government of Travancore, Trivandrum, p.156.

[319] Ibid., p.157

[320] In this year totally 15,36,399 patients were treated in various institutions. Among them 35,101 were inpatients and 15,01,298 were out patients. A daily average of 73 in-patients and 513 out patients were recorded in Hospitals and Dispensaries in Travancore in this particular year. The number of in-patients treated in Government Institutions rose from 25,713 to 28,311 and that of out-patients from 12,06,092 to 13,37,221. The Fort Hospital, Trivandrum had an average of 397 out-patients a day. Total 49,984 surgical operations were performed in that particular year. There were 2,257 beds provided for inpatients in various hospitals in Travancore. Inpatient mortality rate was 3 percent...Ibid., pp.157-59.

A child welfare scheme was continued in this year also. The midwives in the several hospitals and dispensaries continued to do more health and welfare work through a system of house-to-house visiting, by proper instruction in neo-natal cases and by tending new-born children. As in the previous year, a class for training midwives for health and welfare work in rural areas was opened in the district hospital, Alleppey. The duration of the course was of one year. There were 75 midwives in the department and they had attended 7,974 labour cases in that year.[321]

There was an increased demand for trained midwives in the moffussils also. So the government was committed to appoint more trained midwives in the hospitals. This further shows that the popular acceptance of Western medicine was slowly spreading over the moffussils too. Efficient nursing staff in the hospitals under government control was introduced in 1906 itself. At that time, the government appointed eight European Roman Catholic Sisters. At the end of the current year there were 24 European sisters working in five major hospitals of the state. Two batches of 25 Indian nurses had already been trained and appointed in the department.

The dispensary treatment system for leprosy was continued in the hospital at Kayamkulam, Karunagappalli, and Chavara, where the incidence of the disease was very high. This mode of treatment was found to be very useful in the early stages of the disease. Special methods of treatments were also tried with success in the hospitals for lepers in Trivandrum. The government was planning to construct a specialty sanatorium for leper patients for their confinement and further treatment. It was mainly because leprosy was one of the major contagions, existed in Travancore during that period.

Yet another factor was the considerable increase in the number of tuberculosis patients. And therefore, the Medical Board was seriously considering the opening up of a sanatorium where early cases may be satisfactorily treated and where the people may be educated in the infectivity of the disease and the method of prevention. The present hospital for chest diseases at Pulayanarkotta is a net outcome of these efforts. Suitable dispensary treatments were also carried out simultaneously in Trivandrum,

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[321] Ibid.,p.159

Quilon, Alleppey, Kottayam, and Nagercoil.[322] The following are the chief diseases persisted in Travancore in that particular year.

1. Leprosy
2. Tuberculosis
3. Malaria
4. Dysentery
5. Typhoid
6. Hook-Worm
7. Elephantiasis

Table 13.***Major diseases in Travancore***

During 1927-28, the Medical Board held 48 meetings so as to ensure better medical care to the public.[323] New dispensaries were opened at Pampadi, Kuruvilangad, Kalavoor, Edathwa, Ayikudi, Varkala, Vizhinjam, Karupangadi, and Kodanad.[324] The following table shows the number of medical Institutions in Travancore during the past four years.

[322] Ibid., p.159.

[323] TAR, for the year 1927-28, Government of Travancore, Trivandrum, p.158.

[324] In this year the total number of patients treated was 15, 19,711.Among them 36,720 were in-patients and 14, 82,991 were out-Patients. So there was a daily average of 1486 in-patients and 9871 out-patients. In this year the total number of patients treated in the Government Institution was 29,337 and out- patients was 13,13, 589.The largest number of out- patients was treated in the Fort Hospital, Trivandrum. Total 55,597 surgical operations were performed…Ibid.,pp.158-59

Year	Number of Hospitals	Number of Dispensaries	Total
1924-25	31	35	66
1925-26	31	36	67
1926-27	31	42	73
1927-28	31	51	82

Table 14***: Medical Institutions in Travancore, 1924-28***[325]

It is clear from the above table that the number of hospitals had not been increasing since 1924-25. Whereas the number of dispensaries, had been slowly increasing in Travancore. The total number of dispensaries rose from 66 in 1924-25 to 51 by 1927-28. However, it was not a sufficient growth as the population of Travancore was increasing rapidly.

The total permanent strength of the professional staff of qualified medical persons was 135 of whom 13 were women. Among the permanent officers of the department, 11 held European degrees or diplomas and 38 held Indian University degrees. Amongst the 13 women medical officers in the service, 3 held European degrees and three Indian University Degrees.[326]

As in the previous year, the treatment and care for expectant mothers and of infants received careful attention. The midwives attached to several hospitals continued to work on health and welfare by conducting house to house campaigns. Proper instructions were given as a part of their campaign to mothers regarding natal care, pregnancy and health and hygiene. At the end of this year, there were 82 midwives attending 9,299 labour cases. That means an average of 113 labour cases per midwife.

Two more scholarships were allowed for L.M.P course in the medical school for women at Vellore. As in the previous year, a capitation fee of Rs. 500 was paid by the government to this institute as per the previous agreement. Injection treatment for

[325] TAR for the years 1924 - 28, Government of Travancore, Trivandrum.

[326] Ibid.,p.159

lepers were continued in the dispensary at Chavara along with a leper survey by a Leper Commission, deputed by the School of Tropical Medicine, Calcutta.

In the year 1934, there were 32 Hospitals and 53 Dispensaries in Travancore.[327] Among these institutions, 8 major hospitals were located in Trivandrum. Other 24 hospitals have been located in various places of Travancore, which include the Victoria Jubilee Mission Hospital, Quilon, and Sethu Lakshmi Bhai Hospital at Thaikkattusseri etc.

The number of dispensaries kept on increasing and within ten years of time not less than 30 dispensaries were added to the existing numbers. Thus, by 1943-44, there were 32 government hospitals in Travancore. There were a total of 83 dispensaries including bi-weekly, temporary, evening, malaria and itinerant dispensaries. There were 6 special duty dispensaries, and five prison hospitals.[328] A total number of 3,183 beds were available for the in-patients. There were 23 grant-in-aid institutions in Travancore during this period. The following table shows the pattern of patients treated in these institutions.

Categories	**Numbers**
Out-patients	1,912,153
In-patients	79,530
Total	1,191,683
Men	6,74,243
Women	7,84,162
Children	5,35,278

Table 15: ***Details of the number of patients treated in Government Institutions in 1943***[329]

[327] *The Travancore Almanac and Directory*, The Government Press, Trivandrum, 1934, pp-372-73.

[328] TAR for the year 1943-44, Government of Travancore, Trivandrum, p.80.

[329] Ibid., p..81.

Travancore state thus made great efforts to introduce western medicine among its people. This was largely because the state felt that providing 'charity' for its people was an important function of a Hindu state.[330] This attitude of the maharaja seems to have been different from that of the British colonial authorities. In British India, medical priority was given, apart from jails, to the army. The army was one of the principal agencies to maintain the British Empire.[331] By contrast, Travancore which depended on the British for its defense did not possess a substantial military force except the Nair Brigade with a strength of about 1500 military men. This was entirely a semi-peasant force entirely recruited locally. The men spent four days on duty and four days working in their fields, and their work was entirely guard and ceremonial duty.

Thus, unlike the British rule in colonial India, the Travancore state had almost no need to provide health care for its military force to defend its own regime. Being a protected native state, as per the agreement between the British and Travancore Rajas, the security of the state was entirely vested in the hands of the British. Consequently, the attention of the maharaja and the government was largely focused on the medical care of the people.[332]

In conformity with the statement made by the Maharaja, free medical relief was given to the people until about 1940.[333] The government medical institutions also treated lower castes and in this respect its medical policy was very different from its educational policy, which almost completely excluded the lower castes from government schools, at least until the late 19th century. The following table shows different numbers of patients treated in the General Hospital from different caste groups for a particular year. It is apparent that all castes were not treated in an equal

330 Koji Kawashima, *Missionaries and a Hindu State Travancore*, Oxford University Press, 2000, p.119.

331 Radhika Ramasubbhan,op.cit.,p.41

332 Koji Kawashima, op.cit., p.119-20.

333 Ibid., p.120.

way in the hospitals, particularly. The higher and lower classes were accommodated in separate wards.[334]

Caste\Community	In-patients	Out-patients
Brahmins	105	1,714
Castes between Brahmins and Nairs	90	576
Nairs	308	2,680
Artisan Class	51	601
Ezhavas	213	1,570
Lower Classes of Hindus	55	857
Mohemmedans(Muslims)	35	653
Europeans	6	271
East Indians	44	956
Native Christians	245	2,527
Total	1,152	12,405

Table 16: ***Number of Inpatients and Outpatients treated (caste/community wise)***

Source: TAR for various years.

In retrospect the numerous buildings which remain today from nineteenth century policy reflect the commitment of the government to improve in whichever way it thought possible the health of its population. On the other hand, the government may only have been responding to the population's demand for medical facilities. The Travancore state manual says "in the olden days women of respectable position considered it beneath their dignity to go to a hospital for confinement. But with the advent of women doctors with high qualifications, women show an increased readiness to be treated in hospitals. There was the availability of female physicians

[334] V Nagam Aiya, *The Travancore State Manual:* Vol. IV, p.226.

which attracted women of high castes to these institutions. But a tremendous change in the caste system had to occur before women of high and low castes could share in the same institutions."[335]

In the period 1947-48, western medical institutions under government control made rapid strides in Travancore. In this year, four more dispensaries were established at Uzhavur, Alachakonam, Kottukal and Poonthura. Thus, during this particular period, there were 143 government institutions in Travancore. One temporary dispensary, at Sethuparvathipuram discontinued its functioning in that particular year.

Government medical Institutions (Western medicine)	**Number**
Major Hospitals	5
Minor Hospitals	27
Dispensaries	107
Leprosy survey and treatment centers	4
Total	143

Table 17: ***Medical Institutions in Travancore, 1947-48***

Source: TAR for the year 1947-48, Government of Travancore, Trivandrum.

These intuitions under government control treated 1,15,275 in-patients and a total of 23,98,236 out-patients in the year 1947-48. This altogether constituted a daily average of 19,601 in and out-patients treated in these institutions. The most important factor was that, there was only 1.99 % patient-mortality in these institutions during that particular period. All these factors ultimately prove that western medical care attained an immense popularity by the year 1947 in Travancore with its due patronage from both the princely rulers and the British paramountcy. The government

[335] Ibid., p.220.

institutions always stood ahead in dispensing western medicine in Travancore during the colonial period.

Grant-in-aid system in Medical Care[336]

The introduction of a grant-in-aid system was yet another important innovative venture in Travancore. As per this program, land and financial grants were made to selected medical institutions so as to ensure the quality and well-functioning of the institutions in European medical care system. The durbar physician was entrusted with the supervision and control of the medical institutions which worked on European methods under this system in Travancore. Hence, the Women and Children's Hospital was established in Trivandrum with the help of the Missionary Societies.[337] A female doctor was appointed as the chief of this hospital. This hospital later began to train female apothecaries to meet the deficiency in various hospitals. Government scholarships were provided to those who got selections for such courses in this hospital. These women-trained apothecaries were supposed to work in the rural and remote areas of Travancore.

Later in 1897, a separate Leper Hospital was established under the grant-in-aid system in Trivandrum. In 1901, the Honorary Secretary to mission to lepers in India and the East declared, "I have seen 30 Asylums - Government, Municipal and Mission and the Trivandrum one ranks well in the forefront, if it is not actually the best I have seen."[338] As western medicine discovered new drugs and methods for the treatment of infectious diseases, these institutions were available to adopt them. The

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336 By introducing grant in aid system, the Government of Travancore had an agenda of encouraging private agencies in medical care by providing financial assistance along with land grants for the development of infrastructural facilities. Thus financial grants were given not only to the agencies of western medicine but to those who propagated indigenous medicine also. Various Medical Missions in Travancore had been receiving such grants in the form of land and finance from the ruling Rajas.

337 Many Missionary Groups like the London Mission Society (LMS) and the Church Mission Society (CMS) had entered in to Medical Mission activities by providing their services through dispensaries, hospitals and other itinerary programme during that time. Salvation Army was yet another group of Missionaries worked vigorously in South Travancore. For more details see, Koji Kawashima, *Missionaries and a Hindu State Travancore*, Chapter, II and III. The Mission activities will be discussed in detail in the chapter ahead.

338 Ibid., p.77.

medical institutions were not only relevant for their charitable work but also had very strong and important relationship with public health work also.

Thus, by 1909 there were 11 grant-in-aid institutions in Travancore dispensing western medicine to the people. The Travancore government had spent an amount of Rs.12,586 and 3,19,080 in 1908 and 1909 respectively in this regard. Financial assistance was made in the form of government aid to meet the needs of such institutions. So the government had a vision that they could ally with various private agencies — the missionaries particularly — in providing health care to people of Travancore. The number of grant-in-aid institutions further increased to 13 in the year 1911[339] which was further increased to 18 in the year 1933.

Institution	**Location**
Grant-in –aid Hospital	Neyyoor
Grant-in –aid Hospital	Magnamy
Grant-in –aid Hospital	Marthandam
Grant-in-aid Dispensary	Granby(Annakal)
Grant-in-aid Dispensary	Bonamy
Grant-in-aid Dispensary	Kalthuruthy
Grant-in-aid Dispensary	Munnar
Grant-in-aid Dispensary	Yellapatti
Grant-in-aid Dispensary	Sothupara
Grant-in-aid Dispensary	Ashamboo
Grant-in-aid Dispensary	Nedungolam

[339] These institutions treated total 179 in-patients and 111496 out-Patients in that particular year...TAR for the year 1910-11, Government of Travancore, Trivandrum.

Catherine Booth Hospital	Vadasseri, Nagercoil.
Leper Asylum	Alleppey
Leper Asylum	Neyyoor
Grant-in-aid Dispensary	Aramboly
Grant-in-aid Dispensary	Kulathumel
Grant-in-aid Dispensary	Attingal
Grant-in-aid Dispensary	Kothanallur

Table 18***:Grant-in-Aid Institutions in Travancore, 1933***[340]

A majority of these institutions were run by various missionary authorities. And therefore, a detailed discussion on the functioning of these institutions will be held in a separate chapter. There were also some other agencies who took up medicine as charity work.[341]

Thus, there were only 20 grant-in-aid institutions dispensing Western medicine in the year 1947-48. A majority of these institutions were run by different missionary agencies. This further shows the enthusiasm shown by the government to promote government medical institutions rather than promoting private agencies in dispensing western medicine.

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340 TAR for various years; Koji Kawashima, op.cit.,

341 Swami Nirmalanada of Ramakrishna Mission visited Trivandrum in 1911. Construction of an Ashram in Trivandrum was under consideration at that time. Thus, in 1915, the construction of the Ashram was started as they got about 5 acres of land as a contribution from a private individual at Nettayam, Trivandrum. The construction work of the Ashram was completed only in 1924. Hence in 1937 Swami Nirmalanada formed a society namely 'Narendra Mission' at Ottappalam, in Palaghat District. Hence the dispensary was upgraded to the status of a hospital with 10 Inpatients facilities and more. In 1939 a dispensary was started functioning at Sasthamangalam, Trivandrum namely Narendra Mission Charitable Dispensary…Dr. P Vinaya Chandran, *Keraleeya Chikitsa Charitram* (Mal.),D C Books, Kottayam,2000, p.113.

Special Institutions:

Available administrative records on Travancore in the colonial period indicate that, there were some medical institutions those had rendered valuable service to the state in disseminating western medicine to the public. And without their accounted performance, western medicine would not have made such a rapid progress in Travancore by the latter half of 19th century. Their performance will be discussed in this section.

The General Hospital, Trivandrum.

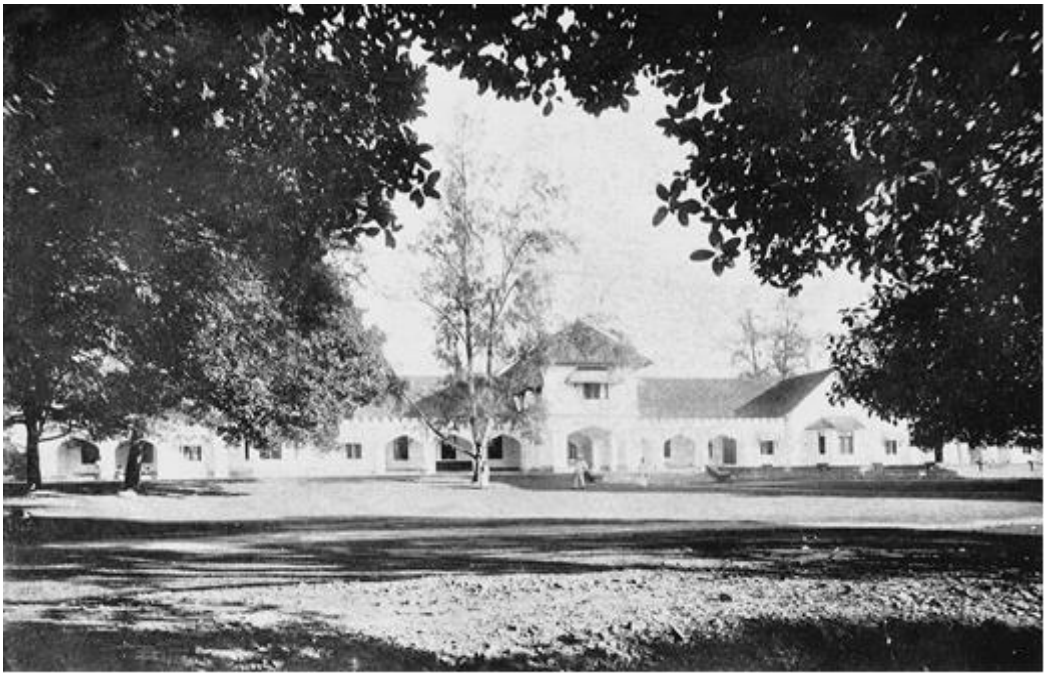
The opening of a 'civil hospital' on 10th November 1865, for the public in Travancore was an important achievement during the reign of the then ruling raja, His Highness Aayilyam Tirunal Rama Varma (1860-1880).[342] After the foundation stone was laid, the works of the civil hospital was completed within 14 months.[343] The hospital consisted of four wards, with bathrooms attached to them, dispensary, waiting room and a lecture hall at the upstairs. The lecture room was intended for delivering classes to the students in connection with medical education. Thus the general hospital then known as the 'civil hospital', was opened by the Maharaja, Aayilyam Tirunal. The ruling raja spoke on the occasion of the opening ceremony regarding the objectives of the state intervention in disseminating European health care, and said that

"for time being charity has been regarded by Travancore as one of the cardinal duties of the state. Its reputation as dharma raj is familiar to all India. What can be more real, more substantial charity, than the provision of means for the relief or mitigation of sickness and disease! I hope that this institution will freely resorted to by those for whom it is designed, and that it will be always distinguished for its

[342] Aayilyam Tirunal Rama Varma (1832-1880) ruled the Princely State of Travancore from 1860 to 1880. During his reign, the state gained the fame of being a 'Model State of India'. As the government had plunged in to huge public debt, he introduced certain financial regulations to resolve this crisis. Along with it, several reforms were brought about in the field of agriculture, law, education, medicine etc. For more details see, A Sangoonny Menon, *A History of Travancore,*

[343] TAR for various years; The Civil Hospital, as it was known in those days has been renamed to the 'General Hospital' with additional facilities made every year as a part of the extended Public Health Program of Travancore. The Ruling Rajas who succeeded one after the other, according to the available records, paid great attention for the development of this hospital at the capital.

sanitary arrangements ,for the attention and tender care of the sick and suffering ,and for the successful accomplishment of its main end –the cure of disease. One of the main objects of my ambition is to see that good medical aid is placed within the reach of all classes of my subjects. It is a blessing which is not at present in the power of individuals generally to secure how much so ever they may desire it. It is hence the obvious duty of the State to render its assistance in this direction"[344]



The General Hospital, Trivandrum, Travancore

Dr.H.M. Ross (Durbar physician) was in charge of the hospitals after its beginning. All the affairs of the day today work of the hospital were entrusted on him. One of the important features of the hospital was that a separate ward was allotted for the females, which was mainly reserved for obstetric cases and diseases peculiar to women. So the state government had been very particular in providing medical care to women. A separate ward for ophthalmology was also opened in the same year. Dr. Pulney Andy was appointed as the superintendent of vaccination in 1865.[345]

The popular acceptance of the Civil Hospital began to increase as there were more facilities attached to it. Besides vaccination for smallpox, all curative facilities were made available in the hospital. Additional improvements were made to the

[344] V Nagam Aiya,Vol.II, op.cit.,p. 537.

[345] G.V Subramani Aiya, op.cit., p.6.

building during 1869-70.[346] The total number of in-patients treated during the year was 877, of whom 51 died, 749 were cured, 21 were relieved (most of those feeling better left hospital before a perfect cure was effected) and 56 remained in the hospital at the end of the year. Most of the patients who died were moribund at the time of admission or were suffering from the diseases so advanced as to be hopeless for cure.[347]

There seems no doubt however, that an increase of confidence was beginning to be felt in European medicine, and this tendency was carefully fostered by attention to the wants and needs of the people, and as far as possible, by meeting their inconvenience.[348] In 1870, two Pulaya Vaccinators, trained at the London Missionary School were appointed mainly to operate vaccination among their own castes and other lower caste people.

The need for a separate accommodation for the insane patients was yet a necessary thing during that period. Convinced enough of the need, a separate building near the civil hospital was allotted for this purpose. Thus an infant form of a temporary lunatic asylum was opened during 1877-78. The Durbar physician was in charge of the asylum.[349] In the year 1907, several attempts were made by the durbar physician to get permission from the palace for the construction of a separate waiting room for the female out-patients who visited the General Hospital.

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[346] Want of space for the reception of in-patients has considerably contracted the usefulness of this institution during the past year, but the additions to the hospital buildings noticed in the last report are now under construction, and will, when completed ,render available 36 more beds for the accommodation of inpatients. Of these buildings two are detached wards of 12 beds each, the other (the operating surgical ward) also of 12 beds being in continuation of the main building, so as architecturally to balance the hospital store room situated at the other end, which will also when completed considerably facilitate the hospital work…*TAR for the year1869-70*, Government of Travancore, Trivandrum, 1870, p.95.

[347] According to the administration report for the concerned year, this danger occurred mainly because of ignorance and, partly to superstitions and caste prejudices, and frequently to the influence of the Native *Vaithyan* (native practitioner or physician, who with their mixture of incantations and nauseous decoctions generally promises a speedy cure of even the most serious diseases). It very frequently happens that the patient does not apply for European treatment until he has been given up by the native physician or his disease has advanced so far as to be difficult or impossible to cure. Ibid.,p.96

[348] Ibid., p.96.

[349] Ibid., p.8.

While replying to a letter sent by the durbar physician, the diwan of Travancore stated that "in his letter above noted, the D.P (Durbar Physician) reported that separate waiting accommodation for female was highly desirable in the dispensary attached to the general hospital. He recommended that a room similar to the one in the eastern side should be added on the western side with a door leading into the consulting room, that to give the building a furnished appearance, a verandah should be added on the southern side. The diwan further added that the durbar physician was told in reply that the matter will be considered after inspection of the place."[350]

In the Diwan's inspection note dated 22-06-1907, it was stated, "Finally inspected the new building for outdoor patients this answers the purpose very well. The durbar physician proposes to add a wing for female patients to wait at a moderate cost…"[351]

Thus permission for the construction of a separate waiting room was granted by the palace on 29 July 1907 at a cost of Rs.500, and the sanction was communicated to the durbar physician, who was asked to forward it for the approval of government. However, later it was found that the sanctioned amount was too little and hence it was increased to Rs.875 mainly due to the request from the durbar physician as well as from the executive engineer of the government.

Thus, a separate waiting room for the female out patients became a reality by the end of the year 1908. This further indicates that the Travancore government was very particular in providing necessary facilities for the women patients who visited the general hospital.

The general hospital had treated 3,116 in-patients and 27,874 out-patients during the period 1903-04.[352] The number of in-patients treated in the general hospital, Trivandrum rose from 16,448 to 17,480 and the out-patient from 84,254 to 90,284 in 1928. The number of surgical operations performed in the hospital also rose

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350 Letter from the Dewan of Travancore to the Durbar Physician, Travancore, General Section, Bundle No.39, File No.211, 1908, Kerala State Archives, Trivandrum.

351 Ibid.

352 V Nagam Aiya,Vol.II,op.cit.,,p.525

from 8,842 to 10,913 of which 2,458 were major operations and 8,544 were minor. The percentage of mortality among the operated cases was 0.7 percent. The X-ray department had done valuable service by examining 3,769, which included treatment given in the electro-therapeutic department also. The following facilities were made available by about 1937.[353]

- All Kinds of X-Ray examinations and super special X-Ray treatment.
- Ultra Violet treatment.
- Medical and Surgical Diathermy
- Ionisation &Electrolysis
- Radiant heat and Infrared treatment
- High Frequency
- Vibrating Massage
- Galvanisation and Faradisation

The department started functioning for the whole days except Sundays from 9 am to 12 pm. The services of a Radiologist and a Medical Graduate were made available in the department so as to ensure quality and reliability in its functioning. The following rules and regulations were made to be in effect by 1938.[354]

- No X-ray examination will be made on treatment carried out in the X-ray department without a written requisition and instruction as to what is required, from one of the medical staff of a hospital or from a qualified medical practitioner.

[353] For more details see, *The Travancore State Directory for 1938*, Government Press, Trivandrum, 1937.

[354] TAR for the year 1938, Government of Travancore, Trivandrum.

- The following rates of fees are levied and credited to the government in the case of all patients, other than those who are certified, to be too poor to pay, by a government medical officer or a qualified medical practitioner.[355]

Items to be examined	Rates (In Rupees.)
Teeth(each Quadrant)-Upper Right, Upper Left, Lower Right, Lower Left	2.00
Hand, Foot, Long Bone of the extremities or limb joint	4.00
Jaws, Teeth(whole set),thorax, foreign body or the alimentary canal	8.00
Skull, Urinary tract (without dye for Pyelography),spine, prognamy,gall bladder region(without dye for visculisation) oesophagus with Barium Meal, Barium Enema or pelvis	10.00
Barium Meal(alimentary canal)Pyelography or gall bladder visualization with dye	15.00
Electrical treatment per sitting (subject to a maximum of Bh.RS.15.)	1.00
x-ray treatment per sitting(subject to a maximum of Bh.18)	3.00

Table 19: ***The X-Ray department's examination charges for various body organs.***

In 1921, a class for training the compounders was opened in the general hospital. In the beginning, about 40 students were given admission. One of the important point to be remembered was that, among those 40 students, 5 were from the depressed classes of the society. In that year, ten teachers from vernacular schools

[355] N. B. In case of requiring more than one examination Radiographic examination of the same part within a period of one calendar month from the date of examination for which the patient has paid, only alternate examination will be changed for. For cases requiring X-Ray and Electrical treatment, supplementary sitting on a later occasion for the same disease will be given free for one calendar year if found to be necessary. X-Ray examination will be conducted in any house in the Trivandrum town which has a supply of electric current from the town mains and will be available to the public on payment of a fee of Bh.Rs.30 for examination of alimentary canal and Bh.Rs.20 for all other examinations in addition to the scheduled rates in force and car hire. If private parties are prepared to bring their own cars suited to the requirements of the specialist and the safety of the articles to be conveyed to and for the same will be accepted in lieu of motor car hire. The specialist and the attendant or warden who accompanies the machine should be paid actual conveyance hire limited to daily allowance…. *The Travancore State Directory for 1938*.

were given a course of lectures in 'First Aid' and were examined and granted certificates.[356] In the year 1923, 3,541 in-patients were treated in the general hospital. 36,711 out-patients were also treated. The dental department and ENT section worked throughout the year properly. Ninety-nine patients had used the pay-ward facilities in the hospital.

The first block of building as an addition to expand the facilities in the hospital was in progress in that year. The durbar physician, as a part of his duty, inspected the hospital in this year also. In the period 1924-25, the general hospital treated 3,468 in-patients and 39,375 out-patients. Total 2,134 surgical operations were done in this year. The in-patient mortality rate was 3.71 percent. One hundred and twenty seven patients were using the pay ward facilities.[357] In the year 1925-26, the number of in-patients treated in the general hospital had slightly increased. A total of 4,002 in-patients and 45,150 out-patients were recorded. The number of out-patients also had considerable increase. Total 2,036 surgical operations were performed in the hospital. General mortality among in-patients was 3.95.

In 1926-27, a total of 4,161 inpatients and 40,657 out-patients were treated. Totally, 2,237 surgical operations were performed. Mortality among in-patients was 3.75 percent. In that year, new facilities for the electro-therapeutic section were established in the hospital. It started functioning as a special department from this year onwards. Another achievement of this year was the installation of electric lights in the hospital.[358] In the year 1927-28, a total of 4,469 in-patients and 40,615 out-patients were treated in the general hospital. In total, 2,044 surgical operations were performed. Mortality among in-patients was 3.1 percent (excluding those who died after surgical operations). This indicates that the popular acceptance of the hospital was increasing day by day as more facilities were introduced and confidence was built after providing better medical care in western medicine to the public of Travancore. The number of in-patients and out-patients treated in the general hospital kept on increasing. For instance, in the year, 1928-29, the total number of in-patients treated

[356] TAR, for the year 1921-22, op.cit.,p.171.

[357] TAR, for the year 1924-25, op.cit.,p.124

[358] TAR, for the year 1925-26; 1926-27, op.cit.,p.146.

was 5,120 and out-patient was 41,768. The number of surgical operations both major and minor also showed an increase, being 3,362. The dental section was reopened temporarily and put under the charge of a sub-assistant surgeon.

A new block of buildings to accommodate 48 beds and two semi-permanent sheds, one to accommodate the infectious and the other contagious were completed and occupied during the year.[359] The number of in-patients and out-patients treated in the general hospital was further increased to 6,805 and 44,239 respectively. The number of surgical operations, major and minor, decreased from 4,847 to 3,447 by this year. A portable X-ray apparatus was procured in this year.[360] Thus the X-ray section was renamed as the 'King George V Silver Jubilee Memorial X-Ray and Radium Institute'. In 1933, two newly constructed pay-wards were opened for the inpatients. Thus, until this time the Travancore government had given free medical care, without any collected fee or so, to the people of the state.

Thus by 1947, the general hospital at Trivandrum became one of the premier institutions of western medicine in Travancore. In that particular year itself, this hospital had treated 16,222 in-patients and 80,831 out-patients, which was of course a record number during that period.[361] Almost all specialty sections were organized and started functioning well with adequate facilities by this period.

Women and Western medicine in Travancore:

Women's health has been a matter of debate throughout the nineteenth century India under the western medical system. The British rulers were not particularly interested in the health of their colonial subjects, and neither the British nor Indian men were concerned with cases of child-bearing mainly because of the prevailing anxiety about the health of the British army in India. And therefore, they cared about European troops and European quarters and initiated sanitary measures designed to control "native women". In the early days after the advent of the Western medicine, the prostitutes were subjected to compulsory medical examination. It was women

[359] TAR for the year1928-29, op.cit., p.178.

[360] TAR for the year 1930-31,op.cit.,p.173

[361] TAR for the year 1847-48, Government of Travacore, Travancore, p.134.

missionaries and the wives of Indian officials who brought these issues to the public arena. When they did so, they found allies among the newly emerging class of western-educated Indians.[362] In Travancore, the newly western educated middleclass gave a fillip to this process. Gradually, according to Forbes, the wholesale acceptance of western-style child-bearing practices, regarded as rational and scientific, became part and parcel of progressive Indian society.[363] Even as early as 1850, the Zenana Mission had started a hospital for women at Trivandrum, the capital city of Travancore.[364]

Hospital for Women and Children[365]

The period from 1860 to 1880 was a fruitful and flourishing year for the medical department in Travancore. It was during this period that rapid advancements were brought about in the department. The ruling Raja Rama Varma (also known as Aayilyam Tirunal) had contributed much for this progress.[366] The first female, as a mid-wife, Mrs. Ashton, was appointed soon after the opening of the 'civil dispensary' in Trivandrum. After the opening of the civil hospital, a separate 'female ward' was opened in the same hospital. Arrangements were also made to provide separate accommodation for female patients in all the new hospitals that were being opened.[367] So the ruling raja had a particular interest in providing facilities for the treatment of women in all hospitals in Travancore.

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362 Geraldine, Forbes. *Women in Colonial India: Essays on Politics, Medicine, and Historiography*, Chronicle Books, New Dellhi,2005,p.80

363 Ibid.,p. 80.

364 Indian birth practices were of little interest to colonial authorities until missionary women made them an issue. However the arrival of the Church of England Zenana Missionary Society altered the notion of women in education and health care in India. By the 1880, educated men and women who supported mission activities believed education and Western medicine would better the condition of women in India. For more details see,Ibid.,pp.85-86

365 This hospital, currently situated in Thycad inside the capital city, with every facility, has been one of the leading hospitals catering the needs of women and children in Western medicine since its opening in the colonial period.

366 The efforts to extend western medical care facilities and personnel to Indian women were very popular among Indians who considered themselves modernizers. The enlightened among the elite served on medical boards, donated money to hospitals, and refuted who argued that Indian women were not ready to take advantages of the new facilities. Geraldine, Forbes, op.cit., p.88.

367 G V Subramani Aiya, op. cit., p.15.

However, the number of women patients admitted to the ward was very low as a majority of them hesitated to enter the wards mainly because it was occupied by the male patients. Hence the government constructed a separate building adjacent to the Civil Hospital for this purpose as a Lying-in-Ward in 1866.[368] Caste was yet another factor for the lower rates of admission of higher caste females into the hospital wards. Hence, this led to a higher infant mortality rate during deliveries. In order to prevent this, the government of Travancore had permitted trained Nair women as midwives to visit the households of the higher castes to attend delivery cases. Thus eight Nair women were recruited as trained nurses in obstetrics and child care.[369] Hence, Nair women were recruited to train as obstetric and sick nurses. In 1870, the general hospital's infrastructure was further increased by adding two separate wards, one for the Brahmin women and the other for the Nair women. This was the first attempt of the Travancore government to provide separate facilities for women in western medicine. It was mainly aimed to attract the patients particularly from the higher castes. The ruling raja made it clear in a public speech that:

…it is true that no limit can be assigned to our progress and it can never be given to any ruler, however powerful or favored, to say that he has done everything for his subjects. On the contrary, what a single ruler can possibly do in a life of incessant activity must form but small fraction of what may be done to the country. The lifetime of an individual is but as a day in the life time of a nation…Yet, it is no less our duty to exert our utmost energies to prove useful in our generation.[370]

368 Ibid., p.15.

369 Ibid., p.15.

370 Ibid., pp.15-16.

In order to attract the higher caste women particularly those who hesitated to go to the general hospital, the Raja, under his keen interest had sanctioned permission to open a temporary hospital with six beds, to be built in Miss. Blandford's compound at the capital. A Zenana Mission's Hospital was already functioning there. It was in 1893 that the maternity hospital was separated from the 'general hospital' and was placed under a special medical officer, sub assistant surgeon John Gomez. Arrangements were also made to give treatment to women who had till then been under treatment in the general hospital. So, the need for a separate hospital for women and children became a reality.

Administration Block, Women and Children's Hospital, Front view

The opening of a separate hospital for women and children in the year 1896-87 was a milestone in the history of Western medicine in Travancore. There was an intention of recruiting only female staff to the hospital. As a part of such a decision, arrangements were made to recruit a lady doctor from England. In 1896, three lady apothecaries were also appointed there in the newly opened hospital. Owing to the need of accommodation, the institution was initially started as a dispensary in the old Vaccine Depot in the premises of the general hospital. An upper storied building in

the same premises then occupied by the Sanitary Commissioner's Office, was vacated towards the close of the year and both buildings were added and fitted up at considerable cost as the "Women and Children's Hospital". The institution was equipped with every facility so as to ensure better and advanced treatments for women and children. All types of medicines were made available there. Two female compounder pupils were also appointed as the number of patients visiting was increasing. They had been given a scholarship of Rs.5 each per mensem. For the want of lady staff, five young lady students were sent to Madras Medical College for training.

Later, this hospital was also placed under the charge of an assistant lady surgeon by transferring the hospital building from the rented building into a separate building near the general hospital having a lying-in ward for women and children. In 1906, the maternity hospital was amalgamated with the Women and Children's Hospital. Later the women and children's hospital was transferred to Thycad with its own building and other infrastructure facilities mainly to attract women from various communities. The government had an understanding that not even minimum patients were visiting the hospital mainly because of it position near by the General Hospital for males. The Muslim community hardly visited the hospital. The construction of the entire building at Thycad was completed in the year 1913. But until 1916, the hospital was not opened due to many technical reasons. The hospital was, thus, formally inaugurated in April 1916. This was one of the huge institutions in Travancore. By the expansion of such a hospital, the government had a vision that any prejudices against European medical aid would be wiped off. When fully furnished and provided with an adequate staff, the women and children's hospital was expected to be a 'Model Hospital' in this 'Model State' in India.

Thus the hospital was opened initially with 90 beds, and it was for the first time that the hospital was placed under the charge of an Indian Lady Doctor trained in London. Separate wards were arranged for treating maternity, gynecological and other medical cases. During those days the hospital was under the full-fledged charge of women staffs. In the year 1940-41, the staff strength of the hospital included the following:

Staffs	Number
Hospital Superintend	1
House Surgeon	1
Assistant Surgeons	3
Sub Assistant Surgeons	5
Honorary House Surgeons	4
European Head Nurse	1
Indian Nurses	20
Wardens	23
Midwives	17
Compounders	5

Table 20**: *Details of Staff in the Women and Children Hospital***

Source: *The Travancore State Directory for the year 1941*

Under the initiative of the Dewan C P Ramaswamy, a Hospital Donation Fund was started to meet the future requirements of the hospital. The Diwan, Sir. C P, himself made a donation of a sound amount in this regard. This prompted several philanthropists to come forward with donations.[371] Several educated middle class persons came forward with sound contribution. On 31 October 1938 'Her Highness Karthika Thirunal Ward' was opened after receiving a donation of rupees 2,000 from an anonymous person. Another contributor Mrs.Janaki Ammal, wife of late Mr. S Ramaswami Iyyer, who was the Branch Secretary of the Oriental Life Insurance Company Limited, has spent the total expense of constructing a new ward with four

[371] The Indian philanthropists thus sought a guarantee from the government about ongoing financial support before making a donation—an arrangement that was conducive to financial stability. However, these contained special wards for the use of the donor's community, signaling that hospitals could become important sources of community pride and identity. For more details see, Mark Harrison, 'Introduction', in Mark Harrison, Margaret Jones and Helen Sweet (eds.), *From Western Medicine to Global Medicine: the Hospital Beyond the West*, Orient Blackswan,Hyderabad,2009,pp.15-16

beds namely 'Ramaswami Iyyer Ward'. The ward was opened in 1941. Thus, as Harrison argues, giving money to hospitals served to demonstrate the donors' benevolence and their credentials as community leaders.[372]

Since 1927, a two year course of nursing had been regularly held in this hospital. Students who successfully completed the course were being appointed by the government in different hospitals in Travancore. The fame of the institution gradually spread even outside India and patients were admitted from British India, Burma, Ceylon and East Indies. Thus it is interesting to note that in 1936, this hospital stood fourth among the entire women's hospitals in India in the number of maternity cases treated.[373]

The Victoria Jubilee School & Hospital for Women, Quilon.

The opening of the Victoria Jubilee School and Hospital for women in Quilon was yet another achievement in the area of women's health care in Travancore. Quilon, being a military station, was an important area for both the British and the Travancore governments to be equipped with Western medical care facilities. By celebrating Queen Empress' Jubilee in 1886, the Maharaja himself had the opportunity to sanction permission for the establishment of a medical school at Quilon; hence the name was given to it. Thus it came to be known as the *Victoria Jubilee School and Hospital for Women* in the year 1887. It was sanctioned to function within the building of the District Hospital, Quilon until it was made an independent hospital-cum-nursing school. Dr. Poonen MD, a lady assistant surgeon (a Syrian Christian of Travancore) was given the charge of the hospital.[374]

Apart from dispensing western medicine to the Europeans as well as the natives of Travancore, this institution was mainly aimed at producing sufficient midwives required in different hospitals and dispensaries under government control in Travancore. The absence of any particular training school for midwives in Travancore also necessitated the situation for the opening of such a training school in Quilon.

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372 Ibid., p.16.

373 *The Travancore State Directory* for the year 1941, Government of Travancore, Trivandrum, p.195.

374 TAR for the year 1908-09, Government of Travancore, Trivandrum, p.172.

Under the keen interest of the Raja, the palace had contributed Rs. 5,000 to the Lady Dufferin Fund for the training of pupils from different communities. The first batch of students trained in this institution having completed their course came out successful; hence they were deputed for different district hospitals in Travancore during the year 1889-90. This institution was separated from the district hospital in the year 1908, and was made an independent institution with its own building and other infrastructure facilities. Thus, a fresh two year class, consisting of 8 students with stipend facilities and 2 as volunteer students, was started in the school.[375]

Gradually the functioning of the hospital was further expanded. Thus, in the year 1923-24, the hospital could treat 1,541 in-patients and 21,913 out-patients. Majority of the maternity cases from the Quilon district and neighboring areas were admitted to this hospital. The low annual in-patient mortality rate was yet another factor for the growth of the hospital into a full-fledged one in women's health care.[376]

Year	In-patients treated	Out-patients treated	Total
1920-21	NA	NA	NA
1921-22	NA	NA	NA
1922-23	1,486	1,920	3,406
1923-24	1,541	2,913	4,454
1924-25	1,698	28,278	29,976
1925-26	2,205	30,247	32,452
1926-27	2,509	40,843	43,352
1927-28	2,613	48,126	50,739
1928-29	2,707	44,531	47,238
1929-30	3,704	54,208	57,912

Table 21: ***Statement of patients treated in the Victoria Jubilee School & Hospital, Quilon, and 1920-30***[377]

[375] Ibid., p.172.

[376] For instance, the percentage of mortality among the in-patients was sonly 1.24. This was comparatively a lower rate during that period. Lower rate of infant mortality was yet another factor for the growth of the popularity of the hospital. For more details, see, TAR for the year 1908-1909-1947-48, Government of Travancore, Trivandrum.

[377] TAR for the years 1920-30, Government of Travancore, Trivandrum.

When we look at the data shown in the table, it is apparent that there was a gradual increase in the number of in-patients and out-patients treated in the hospital for ten years since 1920. When it treated only 1,486 in-patients during the year 1922-23, the number of in-patients treated was even more than double, i.e.3,704 during the year 1929-30. There was an immense growth in the number of out-patients, who visited the hospital during this particular span of time. When it treated only1,920 out-patients in the year 1922-23, it rose to 54,208 in the year 1929-30.

Nevertheless, this number had a fall in the year 1930-31.While the hospital recorded only 3,042 in-patients, the total number of out-patients was 51,236. The in-patient mortality rate was also increased to 2.5 percent. However, within five years, the hospital again performed well. Thus d,uring 1934-35, the number of in-patients treated was increased to 4,791 and that of the out-patient into 68,658. Since then this hospital could attract the majority of obstetric and gynecological cases in Quilon and other parts of Travancore.

The Hospital for Mental Diseases

Psychiatry as a western medical science/practice arrived in India along with colonialism. By mid-nineteenth century, lunatic asylums grew around the major metropolitan centers.[378] Thus insanity and its treatment became an institution in India only at the end of the 19th Century.[379] This was with the advent of western medicine

[378] The journey of lunatic asylums started way back in the 1740s, when in Bombay (present Mumbai), the back portion of a hospital was converted to a place earmarked for lunatics at a cost of Rs. 125, 0 anna and 45 paisa. While these facilities were started for soldiers and 'sepoys' before the turn of the century, by 1820 the colonial government had organized several asylums in each of its presidencies in Bengal, Madras and Bombay, and that too for criminals and freely wandering insane Indians, and Eurasians from a lower rung. Further, it has been observed that during the course of its journey from 'lunatic asylums' to 'mental hospitals', the knowledge organized in the process of treating mentally ill people under the colonial order was different from that in Britain. Amit Ranjan Basu,' Emergence of Marginal Science in a Colonial City: Reading Psychiatry in Bengali Periodicals', *The Indian Economic and Social History Review*,41,2 004,p.103-4

[379] Arrangements for keeping lunatics under private care but with the East India Company's patronage had started by the late-eighteenth century in Calcutta. The first recorded evidence for it can be dated to 1787. D.G. Crawford, the author of 'A History of the Indian Medical Service, 1600-1913' in two volumes, has given a brief account of the establishment of this lunatic asylum in Calcutta. For more details, see, Amit Ranjan Basu, 'Lunatic Asylums Arrive in India',*www.humanitiesuderground.wordpress.com*.

in to the state. During the late eighteenth and early nineteenth centuries, the 'trade in lunacy' became a lucrative business for England and India.[380]

The idea of 'asylum' and the categorization of insane emerged from the nineteenth century thoughts of medical and judicial rationality of the colonial state. However, it does not mean that 'mad' persons were not identified, diagnosed, and treated in the pre-British India. The colonial and the post-colonial period witnessed the process of the transition from the 'mad' house business to 'lucrative and curative asylums' and further to 'Mental Health Centers' to cater to the needs related to the mental health of the people. Thus, on the one hand, the asylum business apparently supported the process of colonization, but on the other hand it lead to the process of institutionalization of mental health practices in India.

During the process of its transition, i.e. from the 'mad house' to 'lunatic asylum' and then to mental 'health centre' or hospital, a kind of knowledge and power structure was constructed, which was totally different form its origin. The notion of the asylum/confinement was mainly developed in the mid-nineteenth century judicial and medical discourses under a colonial milieu, and which constructed the idea of the problems of madness and then produced an institutional remedial response with western/modern medicine.

Michel Foucault has made some exciting observations regarding the asylums and medical power in nineteenth century Europe.[381] Foucault identified the operation of 'productive' rather than 'repressive' power in the institutions of that period by focusing on the concerns of clinics, asylum and prisons to shape the individuals incarcerated within them. For him, these places were not places for the incarceration of those unable to comply with the demands of the authorities; in other words they were not simply part of a system of repressing those considered deviant. Rather, the techniques employed in these institutions were designed to control the behavior of those considered deviant because of their unwillingness or inability to comply with the demands of the authorities — and then to re-form the errant individuals.

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[380] Ibid.,p.2

[381] Michael Foucault, "Madness and Civilization", op.cit., p.269.

Colonial Travancore was also not an exceptional case in this regard. Patients who visited different hospitals in Travancore included several persons with various mental illnesses also. Available records apparently show that such diseases were more prevalent among the European soldiers stationed at Travancore. Therefore, it was immensely necessary for the British to provide treatment for those persons to sustain their army barracks in the State. Besides this, many natives were also found with various mental illnesses and hence it became a tedious task for the medical department as there was no adequate facilities to provide proper treatment. In connection with this situation, the Durbar physician wrote a letter on 11 July 1866 to the Diwan of Travancore stating that:

"...there are a number of Lunatics at present under my care, two in the Jail Hospital, two in the Civil Hospital, and one in the Charity Hospital; besides I have heard of several other... There has, as yet, been no accommodation provided for such miserable sufferer by the Sirkar; it is now high time that their claims, to an institution of their own, for their safe custody and medical treatment, should be considered.

Mr.Banflis, when he passed through this station mentioned that there were several insane persons in the neighborhood of Mysore and I have no doubt there are many throughout the districts of Travancore ,I would therefore suggest that an Asylum should be provided for them as it is a well-known fact that a large percentage of such sufferers, by judicious treatment ,are restored to their friends in a sound state of mind; which the majority are very much improved. At present nothing can be done for them ,but restrain them from committing offences against their neighbors or friends: no curative measures can be adopted ;I therefore beg to recommend to you the creation of a Lunatic Asylum at Trivandrum have these miserable sufferers may have done for them all that can be done in the way of curative and palliative treatment. I trust you will recommend the scheme to His Highness the Maharaja with your support."[382]

[382] "Letter from the Physician to His Highness Raja of Travancore to the Diwan of Travancore dated 11 July 1866", Cover Files (1728-1903), Bundle No.42, File No.15883, Kerala State Archives, Trivandrum.

Thus as early as 1866 the need of a separate hospital for the treatment of insane patients was keenly felt and in the year 1869, a building near the Civil Hospital, Trivandrum (present General Hospital) was purchased for the purpose.[383] Thus the Medical Department started a temporary lunatic asylum (as it was known in those days) in the same building. Patients with mental illness who were admitted in different hospitals in Trivandrum were transferred to this temporary asylum. Meanwhile a separate asylum was opened for the female lunatics between 1878 and 1879.[384]

Although such arrangements were made by the medical department to treat the patients with mental illnesses, this hospital which opened in a separate building could not accommodate all the patients because of the shortage of space and other facilities. And hence, as per the request from the Medical Department, the government allotted a separate spacious plot of land for constructing a separate hospital for mental disease at Oolampara (near Perroorkkada), about four kilometers away from the capital. The completion of the work of a commodious building was possible within a short period of time. Thus by 1903 itself, the temporary lunatic asylum was transferred to the new location at Oolampara. All patients were removed from the old location. This building could afford all patients with adequate facilities .The name lunatic asylum was changed to "The Hospital for Mental Diseases" during the year 1921.

By changing the name of the asylum, the Medical Department and the government of Travancore had an intention to change the attitude of the public towards mental illness. Hence, it is interesting to note certain observations made by T K Velupillai that "this change is significant since the idea of this institution as an asylum for patients from the adverse reactions of the world has been changed to that of a hospital for patients with recognizable disease forms which can be treated successfully or whose condition may be ameliorated. They may be made to feel more at home in a world of their owDn with the adverse factors removed. This idea will

383 T K Velupillai, Vol. IV, op.cit., p.217.

384 Ibid.,p.217

evidently cause an unconscious influence on the public mind, since a brighter outlook on the fate of the mental patients is foreshadowed by the change in a name."[385]

Nevertheless, it is to be noted that the process of the confinement of the insane was done in accordance with the rules and procedures drawn out by the British authority.

Lunacy Regulations Act, 1904-05

Yet another important attempt of the Travancore government during this period was the passing of a Lunatic Regulation Act in the year 1904-05. Thus the government not only took care of the building of special hospitals for insane persons but also drew clear rules and regulations for their well-being in the hospital. Thus on 4 October 1904, the Maharaja of Travancore issued the following regulations for the welfare of the lunatics in the state. It says:

"….whereas it is expedient to make provision for the care and estates of lunatics, to prescribe general rules by which the state of the mind of the persons who are alleged to be lunatic may be enquired into and to provide for the reception and detention of lunatics in asylums established for that purpose; it is hereby enacted as follows:

1. This regulation may be called "The Travancore Lunacy Regulation" and it shall come into force on the first of Kumbhom 1080. It extends to the whole of Travancore.

2. In this Regulation unless there be something repugnant in the subject or context

   (a) "Lunatic" means any person of unsound mind, incapable of managing his affairs;

   (b) "Dangerous lunatic" means a lunatic believed to be dangerous and found wandering at large in the public streets or thoroughfares to the obstruction and annoyance of the public;

   (c) "Lunatic asylum" means a place appointed to be an asylum under Section 3

[385] Ibid., p.218.

(d) “District Court” has the meaning assigned to that expression in the Code of Civil procedure;

(e) “Division Peishkar” shall include every officer who for the time being is authorized to exercise the powers of a Division Peishkar.

3. Our Dewan may, with our previous sanction, by notification in the official gazette, appoint any place to be a lunatic asylum for the purpose of this regulation and specify the local areas from which lunatics may be sent to such asylum.

4. Subject to any rules which may be made under Section 4, appoint any person to be a superintendent of a lunatic asylum with such establishment as may, in his opinion, be necessary.

5. Our Dewan may, with our sanction, appoint for every asylum not less than three visitors, one of whom at least shall be a Medical Officer not below the rank of an Assistant Surgeon. The Durbar Physician shall be a visitor ex-officio of all the asylums established under Section 3.

6. Our Diwan may, with our sanction, make rules generally for carrying out the purposes of this Regulation, and in particular,

(a) For the guidance of all or any of the officers discharging any duty under this Regulation; and

(b) For the management of, and the maintenance of discipline in a lunatic asylum, and the care and custody of its inmates.

7. Whenever any person who is possessed of property is alleged to be lunatic, the District Court, within whose jurisdiction such person is residing, may, upon such application as is hereinafter mentioned, institute an enquiry for the purposes of ascertaining whether such person is or is not of unsound mind and incapable of managing his affairs.

8. Application for such enquiry may be made by any relative of the alleged lcunatic on payment of a court fee of ten rupees, or by the ‘Sirkar Vakil’ under instructions

from our Diwan, or if the property of the alleged lunatic consist in whole or in part of land or any interest in land, by the 'Division Peishkar' of the district in which it situate.

(a) When the District Court is about to institute any such enquiry as foresaid, it shall cause notice to be given to the alleged lunatic of the time and place at which it is proposed to hold the enquiry.

(b) If it shall appear that the alleged lunatic is in such a state that personal service on him would be ineffectual, the court may direct such substituted service of the notice as it shall think proper. The Court may also direct a copy of such notice to be served upon any relative of the alleged lunatic.

9. The District Court may require the alleged lunatic to attend at such convenient time and place as it may appoint for the purpose of being personally examined by the Court or by any person from whom the Court may desire to have a report of the mental capacity and condition of such alleged lunatic. The District Court may likewise make an order authorizing any person or persons therein named to have access to the alleged lunatic for the purpose of a personal examination.

10. The attendance and examination of the alleged lunatic under the provisions of the last preceding Section shall, if the alleged lunatic be a woman who, according to the manners and customs of the country, ought not to be compelled to appear in public, be regulated by the Rules in force for the examination of such persons in other cases.

11. Upon the completion of the enquiry, the District Court shall determine whether the alleged lunatic is or is not of unsound mind and may make such order as to the payment of the costs of the inquiry by the person upon whose application it was made, or out of the estate of the alleged lunatic if he be adjudged to be of unsound mind, or otherwise, as it may think proper:

Provided that evidence as to the conduct of the alleged lunatic shall ordinarily be restricted to his acts within a period of two years before the date of application; but the Court may, in its discretion, admit evidence of acts done before that period."[386]

Such regulations were aimed at checking malpractices in treating lunatics admitted into the asylum at the capital. Apart from patients with mental illnesses, other patients with tuberculosis, leprosy and other incurable diseases were also admitted in this hospital in its initial years. Besides a medical officer, other consultant staffs consisting of a gynaecologist, an ophthalmologist, an ENT specialist and a dentist were also appointed by the medical department for providing proper and adequate treatment for the patients. Other staffs consisting of a matron, a steward, a weaving instructor, a compounder, a head warder were also appointed. The total bed strength for the inpatients was also being increased every year.

The buildings were built convenient to the patients with airy windows and outside views. Amusements like games including football and volley ball, and facilities for music etc., were made available in the hospital compound. Facilities were made available for imparting training in gardening, weaving of towels, grass mates and manufacture of coir ropes.

Year	Patients in the beginning of the year	Died	Discharged	Remaining at the end of the year
1900-01	138	8	19	111
1901-02	147	8	36	103
1908-09	189	7	21	161
1910-11	179	8	13	158

[386] Lunatic Regulations Act passed by His Highness Maharaja of Travancore, 4 October 1904, Coverfiles, Bundle.No. 42, File No. 1673, Kerala State Archives, Trivandrum.

1921-22	165	16	20	129
1925-26	161	16	29	116
1927-28	164	2	39	123
1928-29	170	0	35	135
1930-31	189	23	28	138
1933-34	191	9	27	155
1934-35	207	16	15+16(cured)	160
1935-36	204	14	30+3+2(improved)	155
1947-48	343	27	106	210

Table22**: Statement of patients treated in the Lunatic Asylum.**

Source*: Annual Report on Civil Hospitals and Dispensaries, Madras, Government of Madras, Madras.*

The table shown above clearly illustrates that the number of patients admitted in the asylum was increasing year by year, although there are certain ups and downs in the number. Although a fixed number of patients were found discharged after a complete recovery, in certain cases there was re-admission too. Moreover, the death rate of the inmates in the asylum was also increasing year by year. This could be due to several reasons. Patients suffering from other acute physical illness might have been one group among them. In other cases, the death rate is an indication of the filthy and unhygienic condition of the asylums, physical assault etc. Poor nutrition might have led to the deterioration of the health of the inmates.

The inmates of the asylum were provided with certain kinds of jobs, through which certain industrial works were accomplished. For instance, these inmates were engaged in mat making, towel weaving etc. Gardening was also carried out as a leisure exercise for these patients. Besides these, a facility for games like football was provided within the asylum compound.

In 1935, the Medical Department directed some specialist doctors working in the general hospital and ophthalmic hospital, and a lady doctor from the Women and Children's Hospital, at the capital, to visit the Mental hospital once in a week to provide treatment to the inmates for other bodily illness. In the same year, a Gramophone was purchased in the Mental Hospital for the entertainment of the inmates. Later, newspapers and periodicals in Malayalam were provided for those who could read the language.

Patients	**1935**	**1936**	**1937**	**1938**
Men	149	147	152	166
Women	55	60	52	55
Total	204	207	204	221

Table 23***: Statement of patients (gender wise) treated for various mental illnesses in different years***

The Leprosy Sanatorium, Nooranad.

Leprosy[387] was yet another threat to the population of Travancore. Leprosy as a contagious disease had received scant attention by the colonial authorities until 1880s.[388] It was the missionaries who took initiatives in treating lepers under western

[387] Leprosy is a bacterial infection caused by Mycobacterium leprae, an organism closely related to the tuberculosis bacterium. Unlike tuberculosis, leprosy is difficult to contract and is rarely fatal. The exact mechanisms for the communication of leprosy are still unknown, though it is believed that while bacteria can be discharged through leprous ulcers, the principal mode of transmission is by coughing and sneezing. Contrary to popular belief, leprosy is neither sexually transmitted nor is it inherited. Leprosy bacteria concentrate in the skin and peripheral nerves, resulting in the dramatic dermatological effects of the disease. The primary symptoms of leprosy- paralysis, inflammation and loss of feeling—are the result of nerve damage caused by the body's immune response to bacterial invasion. For more details see, 'Introduction', Jane Buckingham, *Leprosy in Colonial South India: Medicine and Confinement*, Palgrave- Macmillan, New York, 2002,p.1

[388] Sanjiv Kakar argues that "all too often Western medicine in India has been read as a scientific intervention, especially from the 1870s onwards with the advent of germ theories. In many ways leprosy was unique. For much of the nineteenth century western medicine was characterized by ignorance about causation and transmission of the disease, and had no cure for it; there was also much prejudice against leprosy in the West, which intrude in to the medical perspective, and religious beliefs about leprosy…", Sanjiv Kakar, 'Leprosy in British India,1860-1940:Colonial Politics and Missionary Medicine', *Medical Histroy*,Vol.40,1996,pp.215-16

medicine. They even mixed it with the gospel of Jesus and hence did evangelization of the infected in India. Because of a strong missionary involvement alongside the disinterest of the colonial state in India, Christian Missionaries acquired a commanding position in the dissemination of Western medicine for leprosy, and their perspectives modified further the treatment dispensed to patients. Finally, the responses of Indian patients towards Western medicine and its institutions were influenced by the long tradition of persecution of leprosy patients in India, as well as by specific practices in leprosy asylum, and, in the process of interaction, western medicine was moulded further.[389]

In the initial years after the advent of western medicine, leprosy patients were treated in different hospitals at the capital, Trivandrum. For instance, the General Hospital at the capital also admitted a very few leprosy patients during those days. As the number of patients increased, the medical department realized the necessity to have a separate hospital for the patients with leprosy. But the question of segregation was mooted at this juncture.[390] Thus a separate building was constructed at the capital for this purpose. Thus a temporary leper asylum was built in Trivandrum. But later it became necessary to enlarge the institution on more modern lines, and it was thought inadvisable to have such an institution within the rapidly growing capital of the state, and it was proposed that it be removed to some place in Central Travancore.[391] Thus under the initiative of the medical department, a plot of land was allotted for

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389 Ibid., p.215.

390 Decisions taken with regard to the treatment of the lepers in Travancore, had always been influenced by external factors. There was no globally accepted policy or regulations for the treatment of lepers until 1897. The uncertainty in taking decision in the case of leprosy patients by the colonial authorities, therefore, reflected in the medical policies followed by the Travancore State (as far as it was under the indirect control of the British paramountcy) also. Whether segregation of the lepers was to be followed or not, was a controversial thing. There was a spate of publications by medical and non-medical writers alike, many of whom represented leprosy as an imperial danger, and called for the confinement of all patients. Hence, after the constitution of the Leprosy Commission for India under the initiative of the Prince of Wales, a report was prepared and submitted after an exhaustive investigation of the leprosy in India. Its conclusion that leprosy was not hereditary was in tune with medical thinking at the time, but the view that "under the ordinary human surroundings the amount of contagion which exist is so small that it may be disregarded" provoked criticism from medical and lay person alike. But global fear and other non-scientific factors continued to haunt medical opinion, and the First International Leprosy Congress at Berlin (1897) concluded that "every leper is a danger to his surroundings" and recommended segregation; it also declared leprosy to be "virtually incurable" Segregation was reaffirmed in 1909 at the Second international Leprosy Congress held in Bergen. Ibid.,pp-218-20.

391 Ibid., p.214.

constructing a separate building in the name 'Leper Asylum' at Nooranad, in Alleppey District. Thus, in August 1934 all the leper patients were removed to the newly built temporary shed at Nooranad. In those days it was also called as a "Leper Colony".

The state government later allocated a fund of Rs 3.5 lakh for the construction of a permanent building for the proposed hospital. The newly built hospital consisted of an area of 140 acres with necessary facilities. It consisted of forty general wards of twelve beds in each. Among these, thirty wards were reserved for male and ten wards were reserved for female. One of the important features of the hospital was that it had two separate observatory wards where patients after treatment, who showed symptoms of being cured, were accommodated for a stipulated time before being discharged.[392] A separate jail ward was there consisting of 10 rooms for accommodating criminal leper patients.[393]

Facilities for religious worship were also provided within the hospital without any religious bias. A separate assembly hall was built with adequate space, where a children school with a reading room and library was run. This hall was also used for other purposes like entertainments whenever needed. A weaving shed was constructed to provide labour for the patients of the hospital. Besides these, a shop for selling articles and a fuel store etc. were setup within the hospital compound. All these were run by the patients of the hospital only. These kinds of arrangements, of course, provided a pleasant atmosphere for the patients inside the hospital.

All sanitary arrangements were done for the safety of the in-patients. Closets with flushing facilities were arranged in all buildings. Septic tanks were constructed for sanitary purposes. There were two incinerators for the disposal of used dressings and bandages and other wastes. Facilities were arranged for the cremation of the dead bodies of lepers with tall chimneys for the secretion of smoke. Besides these, further facilities were also provided for entertainments.

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[392] TAR for the year 1934-35, Government of Travancore, Trivandrum.

[393] T K Velupillai, Vol. IV, op.cit., p.215.

As stated in the State manual: *"to divert their minds from brooding over their disease, to keep up their spirits, and to give them the necessary physical exercise, the patients are made to engage themselves in various occupations and pastimes. Besides weaving and washing clothes, the patients are to cook their own food and to engage themselves in vegetable gardening, shoe-making and so on. There are two schools, one for boys and the other for girls, under leper teachers. There is a reading room where most of the Malayalam newspapers are available and a library. The patients are encouraged to make full use of these".*[394]

In the year 1929, an Expert Committee under Dr.Santra and other four medical men were sent to Travancore to conduct a leprosy survey and open proper treatment centres in the state, under the initiative of the Indian Council of the British Empire Leprosy Relief Association.[395] Consequently the committee continued in Travancore for about three months touring the state, opening treatment centers at highly infected areas, delivering a series of lantern lectures and imparting practical training to a batch of four sub-assistant surgeons of the medical department.[396] As a part of their inspection, a detailed survey was done in the Trivandrum taluk mainly with the cooperation of the Health Officer of the Trivandrum municipality, and as a result 839 people out of the total population of 1,75,466 within an area of 97 square miles were found to be infected with leprosy. This apparently showed that the disease, as a contagion, was spreading among the population of Travancore.

Moreover, cases of infections were detected when the survey was being extended to more areas. Thus 614 infected cases were detected in Karunagappalli alone. Total 600 cases were identified in Cherthala and 500 cases in Paravoor. In all these places services of the trained medical men were made available. Special centers for the treatment of leprosy were started in Karunagappalli, Kalavur, Cherthala and Paravoor. At Nagercoil, the treatment was conducted under the initiative and supervisory of the Municipality.[397] Besides this, a trained sub-assistant surgeon was

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394 Ibid., p.216.

395 TAR for the year 1928-28, Government of Travancore, Travancore, p.177.

396 Ibid., p.177.

397 Ibid., p.177.

posted at the leprosy hospital at Oolampara, and the Survey Committee also directed him/her to assist the health officer at Trivandrum. The survey came out with the findings that the disease was more prevalent among the people of the coastal region.

Until 1938, there were no facilities for the treatment of the out-patients. In 1939, a separate clinic for the treatment of the out-patients visiting the hospital was started. As per the administration records, an average of 400 out patients had been treated since its beginning. Anti-leprosy treatments given to the patients included, varieties of chemical combinations in the form of injection, including subcutaneous or intra-muscular injections, acid solutions etc.

Conclusion

Medical institutions of various kinds in western medicine in Travancore have contributed much to the sustenance of British colonialism in the state. Whether it aided colonialism alone is a moot question. Beginning with the process of smallpox vaccination, the Travancore state gradually supported the vision and mission of the residents of the State to cater to the needs of the British authorities. But at the same time the Rajas of Travancore viewed the dissemination of western medicine as a part of the modernization process of their state.

The speech delivered by the ruling Raja on the occasion of the opening ceremony of the General Hospital at the capital apparently proves that ‘charity’ has been regarded by Travancore as one of the cardinal duties of the state. Hence, they considered the provision of means for the relief or mitigation of sickness and diseases as one of their prime responsibility as ruling rajas of the State. Although, initially western medical care was dispensed for the treatment of European soldiers and government employees, the rulers of the state soon realized the necessity of disseminating western medical care to their own subjects in the name of ‘charity’.

The opening of a dispensary at the palace was thus an onset to the process of institutionalization of Western medical practices in Travancore. Since then the state witnessed a rapid flowering of many Western medical institutions such as hospitals, dispensaries of various kinds, laboratories, asylums etc. The state put their best effort forward to attract the indigenous population to these institutions. Gradually special

institutions such as lunatic and leper asylums, contagious disease hospital etc., were also started by state initiatives. But the accumulation of a number of hospitals and dispensaries at the capital alone resulted in an incongruity of medical institutions in different areas of colonial Travancore.

Chapter 4

Missionaries and Western medicine in Colonial Travancore: 'Clinical Christianity' as Philanthropy.

It was not only due to the state's patronage that Western medicine was institutionalized in Travancore, but also due to the enthusiasm shown by the missionaries to dispense it particularly among the lower classes. The influence of the British rule, indirect as it was within the princely domains, seems to have also opened the door for specifically British protestant missionary activities. This was to have consequences that would be serious for the welfare of various wings of the Syrian Christian Community, indeed for Christians in Kerala. Colonel Colin Macaulay, an ardent Evangelical, was appointed as the first British Resident (1800-1810).[398]

As with schooling, the task of popularizing western medicine among the lower castes was taken by the Anglican missionaries in Travancore.[399] In this too, the missionaries were helped with financial grants by the Travancore government. The financial grants were made according to the government policy to strengthen public health programmes with the help of private agencies. Medical Missions have played an important part in medical relief and particularly so in moffussil areas. The first regular missions are said to be those, founded and supported by the citizens of the United States in Southern India in 1830-40.[400]

The British Missionaries from the Baptist and London Missionary societies started to enter India in the 1790s. The arrival of Col. Munro as the Resident in Travancore was an epoch making event in the history of Medical Mission in India. Munro, after his arrival in Travancore, persuaded the Regent *Rani* to grant generous

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398 Penelope Carson, 'Christianity, Colonialism and Hinduism in Kerala: Integration, Adaptation, or Confrontation?' in Robert Eric Frykenberg (ed.), *Christians and Missionaries in India: Cross Cultural Communication since 1500, with Special Reference to Caste, Conversion and Colonialism*, Routledge-Curzon, London, 2003, p.127.

399 K T Rammohan, *Material Processes and Developmentalism in Colonial Travancore*, Unpublished PhD thesis, submitted to Mahatma Gandhi University, Kottayam, Kerala, p.35.

400 *Indian Medical Review*,1938,compiled by E.W.C. Bradfield, Director, Indian Medical Service, Government of India Press, New Delhi,1938,p.46.

gift of money, land, and building materials to the protestant missionaries. Two thousand acres were granted for the support of the CMS seminary, and Rs. 5000 was given to enable the permanent leasing of paddy fields to support the educational institutions of the LMS in Travancore.

Historiography

During the course of the 19th century, missionary medicine had played a prominent role in popularizing western medicine throughout Asia and Africa. For this purpose, large numbers of doctors were recruited to different protestant missionary agencies. They worked with sick people in remote parts of the globe treating maladies that were seen to be as much social as physical. They labored not only to restore health to the bodies of 'natives' but also to save their souls.[401] They were not merely doctors, but some of them performed great as scientists, natural observers, specimen collectors and even more.

According to Megan Vaughan, the mission doctors above all sought to bring about a mental change within their patients creating new subjectivities. Each sick person was a potential convert; each had an individual soul to be won.[402] She states that the missionaries saw their activities in a holistic way, as being part of a wider process of healing the body politic by providing faith along with health. Curing the sick was connected with social reform and the saving of souls.[403]

Imperial mentalities saw the spread of Western medicine over the wider world as an unqualified blessing and its introduction into other continents and cultures as incontestable evidence of the benign effects of European conquest and imperial rule. Medical missionaries were seen as playing a stalwart, and often substantial, part in shoring up imperial claims that the process of colonization brought the benefits of

401 David Hardiman, 'Introduction' in David Hardiman (ed.),*Healing Bodies and Saving Souls*, Rodopi, Amsterdam-New York, 2006,p.1

402 Megan Vaughan, *Curing their Ills: Colonial Power and African Illness*, Polity Press,Cambridge,p.55

403 Ibid.,p.56.

western medical science to the people of less favored nations.[404] Missionary medicine had often been portrayed as an anomaly as against colonial medicine, as a benevolent, persuasive, sentimental form — an interpretation that has been served to underscore the coercive aspect of colonial medicine as practiced by company and state doctors.[405]

The colonizers had to welcome missionary contributions to the medical care of populations under colonial rule for a variety of reasons. Throughout the world, colonial rule itself was frequently responsible for creating a new need for medical work during the nineteenth century. Agriculture was increasingly commodified, local ecosystems were fractured, and rural society became more stratified, with disparities growing between the rich and poor. Many colonial subjects sought work in the towns, mines, and plantations, where living conditions were extremely poor. By the end of the 19th century, diseases which were virtually unknown in many interior regions in the early years of the century — such as veneral diseases and tuberculosis — had become major problems.[406] All these provided an opening for greater biomedical intervention and medical mission work in many countries.

In Britain, certain regulations and reforms were implemented in medical practice through the Medical Act of 1858. Policies of public hygiene and the implementation of preventive health measures were bringing observable benefits and several advancements were made in surgery also. Naturally, the mission responded very positively towards these developments. Missionary organizations responded to this development by trying to keep a foot in both camps — the spiritual and the medical. At the same time, the mission developed a notion of rejecting the validity of the indigenous treatment system and the local healers were now described as ‘quacks’ or ‘witch doctors’. Thus, missionaries became the spokesmen of western biomedicine with a staunch belief in the cultural superiority of the white man. And therefore,

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404 Rosemary Fitzgerald, “Clinical Christianity’: the Emergence of Medical Work as Missionary Strategy in Colonial Inida,1800-1914’,in Biswamoy Pati and Mark Harrison(eds.), *Health, Medicine and Empire*, Orient Longman, New Delhi,2004,p.91.

405 David Hardiman, op.cit., p.8.

406 Ibid., p.14.

according to Hardiman, the missionary medicine became a hybrid in which the priest and the doctor worked side-by-side, one preaching while the other healed.[407]

In the early days, the missionaries travelled to Asia and Africa mainly with an aim of converting people to Christianity in many ways. Education and medicine were the two major areas in which these missionaries concentrated. Thus the Jesuit at Macao, for instance, had taken their medical knowledge to Beijing in the late 16th century, and they did the same in Goa also. It was however, by no means apparent that their skills were superior to those of Chinese or Indian medical practitioners.[408] Until the later part of the 19th century, the protestant missionary movement did not pay much attention to medical work.[409] This means that medicine had not always occupied such a lofty position in the missionary enterprise. Yet, at end of the century, this earlier neglect of medicine's missionary potential was considered an astonishing oversight.

However, Missionary medicine was not a simple humanitarian gesture promising to relieve sickness, suffering and disease in missionary hands; medical interventions were designed not only to care and cure but also to christianize. At the beginning of the 20th Century, many mission-minded Christians were convinced that 'clinical christianity' as missionary medicine was sometimes known, provided the most impressive and persuasive means of presenting the gospel message to the people of other cultures and other faiths. Medical agents were assigned a vanguard place in the missionary army; their work was believed to constitute "one of the most powerful forces for spreading knowledge of Christianity."

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407 Ibid, p.14.

408 Ibid., p.9.

409 For instance, in 1852, missionary societies throughout Europe employed only 13 medical missionaries. Between 1850 and 1870 very few doctors were recruited to missionary group and particularly CMS. One of the reasons was that at the time the Protestant Missionary Movement began to develop large scale — in the later 18th and early 19th centuries — physicians or doctors were not much respected in evangelical circles. However, later this notion was transformed into a more favorable situation. This was begun with the new middling orders where health and fitness both moral and physical were considered to pivotal. Ibid., p.11.

Missionary preoccupation with India and its people, the sense that the quest to cover the globe with Christianity met its ultimate challenge in India, makes this an appropriate setting for exploring the manner in which medicine and medical issues entered the lexicon of missionary thinking.

When the Protestant missionary advance on the world began in the 1790s and early 1800s, missionary societies registered little interest in establishing medical work as a distinct arm of overseas service. Although missionaries were frequently incapacitated by illness and often died, the missionary organizations were generally unwilling to employ doctors to look after them. In part, this was to save money, in part because it was known that the medicine of the day was inadequate for the task. Mission authorities were broadly in agreement that the propagation of Christianity entailed, in the words of the Baptist Missionary Society's constitution, "the preaching of the Gospel, the translation and publication of the Holy Scriptures, and the establishment of Schools."

The History of Church Mission Society (CMS), the largest of the nineteenth century British missionary societies, illustrates this initial lack of interest in developing medical work as a form of missionary endeavor. After the founding of the society in 1799, almost a century passed before medical missions were given official recognition as an established part of CMS work.[410]

At mid-century, the British medical community lacked cohesion and solidarity and practitioners of regular medicine were still in the process of establishing themselves as members of a thoroughly organized and respectable profession. Furthermore, medicine had yet to achieve many of the major advances in knowledge and practice that would later enhance the standing of the medical profession in the eyes of the public. Until they attained the social authority and prestige that came in the later part of the century, medical practitioners were in a poor position to contest clerical dominance in mission affairs. Until the closing decades of the century,

[410] The Church Mission Society (CMS) represented the evangelical wing of the Church of England. By the second half of the 19th Century the CMS maintained more missionaries overseas than any other British Society. In this period, about half of all British missionaries belonged to either CMS or the other leading British Missionary Organization, the predominantly congregational London Missionary Society (L M S)… G .A. Oddie, 'India and Missionary Motives, C.1850-1900', *Journal of Ecclesiastical History*, 25, No.1, January, 1974, p.62.

mainstream societies, such as the CMS, largely dismissed the role that medicine might play as a mechanism for disseminating Christianity.

Thus expectation operated with particular stringency in the Indian Missions. Prior to the 1860s, nearly all British missionaries sent to India were ordained men. Occasionally, the mission boards of this period, recruited doctors in an attempt to stem missionary losses through death and disease, but the limited efficacy of western medicine in the first half of the century did not encourage any widespread confidence in medical staff in being able to reduce missionary wastage. However, from 1870s onwards, the demand for medical missionaries became more vociferous. Hence, increasingly, medicine was viewed as a powerful aid to conversion.[411]

As western biomedicine grew with sophistication, the missionaries gradually shifted their emphasis towards construction of hospitals and dispensaries, which required extensive fund raising. One of the conveniences for the missionaries with hospital was that patients were confined and thus it was easy for them to preach to them. It was also understood by the missionaries that if an in-patient tended to be more seriously ill, they would be in a frame of mind that would be more amenable to the message of the gospel.[412]

The London Medical Mission at Neyyoor

Dr. Ramsay started in 1838 the South Travancore Medical Mission at Neyyoor under the auspicious of the LMS.[413] It was one of first of its kind in Travancore which ultimately paved the way for the beginning of medical missionary activities in

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411 David Hardiman, op.cit.,p.14.

412 Ibid., p. 16.

413 Dr. A. Ramsay was the first medical missionary of the London Missionary Society, sent to Travancore. In 1838, he started medical work at Neyyoor, one of the Mission Stations in Travancore...Koji Kawashima, *Missionaries and a Hindu State Travancore, 1858-1936,* OUP, New Delhi, 1998, p.127.

> In the beginning it was only a small medical chest, which we still have as a reminder of those days so long ago. As people came to hear him (his?) preach, Ramsay gave them medicines for their diseases. And if they came for the medicine for the body, no doubt he administered also some comfort for the soul. Medical Missionary work in south India had begun; with the vision of a far-seeing servant of God and a little chest of house hold remedies...T Howard Somervell, *Knife and Life in India*: *Being the Story of a Surgical Missionary at Neyyoor*, Hodder and Stoughton, London, 1940, p.25.

Travancore during the heydays of British imperialism.[414] But unfortunately this venture was discontinued as the partner of this venture Dr. Miller decided to move to Nagercoil, a nearby place. Both Ramsay and Miller left Neyyoor so that the medical mission work at Neyyoor was discontinued for years. Ramsay along with Dr. Miller started their mission activities in Nagercoil, the southern part of Travancore.

In the southern part of Travancore, Shanars and Parayas, the lower castes constituted the main stay of population. Some Shanars were respectable cultivators, but most of them were toddy tappers, jaggery traders or were in handicraft. Their association with toddy and other factors made them the most polluting people in the eyes of the caste Hindu society. The Parayas, who chiefly worked as laborers in the rice-fields, were held to be even more defiling.[415] This situation made South Travancore the most conducive place for the beginning of missionary activities. Moreover, apart from building some dispensaries, the Travancore government did not pay much attention to the health care of these areas. The government wanted the missionaries to take up the task among these lower castes people.

The Medical Mission work, thus, was restarted in Neyyoor again.[416] It was Dr. Leith, a European trained missionary-doctor, who started constructing a huge hospital. Unfortunately, he could not inaugurate the hospitals as he died in an accident in the sea. In 1861, Dr. John Lowe, took charge of the hospital and started the functioning of the hospital in Neyyoor.[417] Henceforth, the mission performed a prominent role in

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414 A Medical Missionary pointed out at a Missionary Conference held in 1879 that the following factors were necessary for 'thorough Medical Mission Work: (1) a medical missionary, (2) a central dispensary and hospital,(3) a medical school or class, and (4) funds. The medical mission of the London Missionary Society in Travancore had all these facilities during this particular period…Koji Kawashima,op.cit.,p.127

415 Dick Kooiman, 'Conversion and Socio-Cultural Change: A Case Study of South Travancore (19th cent.), *Journal of Kerala Studies*, Vol.XI, March-September, 1984, University of Kerala, Trivandrum, 1984, p.1.

416 The hospital was started again in 1852, under the auspices of the London Missionary Society (here onwards LMS), formed at Myladi in South Travancore in 1806. It was the oldest private institution in Travancore. Dr. Leith, who took initiatives to start it, was the successor of Revd. Mead, the pioneer of English education in Travancore. G V Subramani Aiya, op.cit.,p.20.

417 It was under the initiative of Dr. Lowe that the first medical training class, which was undoubtedly necessary for the expansion of the medical mission, was started in 1864. The first batch of students finished their course in 1867 and they were posted to the newly established dispensaries in Attur, Santhapuram, and Agasteesapuram in 1868, Nagercoil in 1871, and in Tittuvilei in 1874…Koji Kawashima, op.cit., p.127.

providing medical care to the people particularly of the lower classes in the rural areas.[418]

In 1868, six branch hospitals were opened within about sixteen miles from the major hospital at Neyyoor. In order to meet the shortage of staff, a medical school was started at Neyyoor and six students were given training to appoint in these branch hospitals. Such a medical school was necessary as there were more requirements of nurses and midwives and other medical staff in the hospitals and dispensaries established by the missionaries. Moreover, the Travancore government had a policy of appointing trained medical staffs, who were trained from the government medical institutions, in the government hospitals and dispensaries only.

It was due to the grant-in-aid system introduced in Travancore for the expansion of European Medical care system, that the Missionaries could further expand their medical activities across the State. In 1878, Travancore government gave a sanction to open a hospital at Kulasegaram by sanctioning an old salt store building for that purpose. This, according to Somervell, was mainly done by the government because of a particular agenda.[419] This proves that the Travancore government wanted the missionary groups to be an ally in introducing western medicine in the rural areas of the state.

In addition to the efforts of the LMS, another and perhaps the more important reason for the development of medical work in Travancore was that the medical mission received considerable help from the Maharaja of Travancore. The ruling rajas gave large sums and subscription to the Mission. [420]The mission had also received

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[418] In 1862 the Annual Report of the South Travancore Medical Mission was published. The report showed an awesome performance of the Medical Missionary activities in Travancore during that period. According to the report totally 2,629 patients were treated in the hospitals. Eleven major surgical operations were performed for tumours. One hundred and thirty four surgical operations were performed for other major cases. Total 338 minor surgical operations were also performed. T.Howard Somervell, op.cit., p.26.

[419] Somervell observes that Kulasegaram was a large village in the middle of the most malarious part of India. The Government wanted to construct a huge dam, in order to form a lake to store water for the purpose of irrigation during the dry season in South Travancore. For that, thousands of men were to be employed and the Medical Missions were informed to be ready with inevitable causalities that would be associated with a work like this in such an unhealthy district. Ibid., p.26.

[420] Koji Kawashima, op.cit.,p.128.

huge financial aid, other than from the government from time to time as it is shown in the following table.

Source of Income	Amount in Rupees	Anna	Paisa
Subscription from India	2,797	1	6
Subscription from Scotland and England	698	4	0
Interest on Surplus Famine Fund	137	8	0
Balance from last year	51	8	11
Sale of Medicines and Books	116	12	10
Amount in collecting boxes	31	12	10.
Total	3,832	5	3

Table 24: ***Income from different sources for LMS- medical mission for the year 1875***[421]

Thus, the medical mission became gradually independent of the Travancore government for financial need. Nevertheless, the mission had received financial grants from the Travancore government regularly. Apart from the annual subscriptions, the Maharaja helped the missionaries to establish hospitals and dispensaries in different parts of the state. In 1874, for instance, the Travancore government handed over an old rest house at Tittuveli in South Travancore to the missionaries and bore the entire cost of Rs. 877 in converting it into a dispensary.[422]

In 1897, the Travancore government started a grant-in-aid system for medical institutions and then declined any financial grants to the LMS institutions except for the Mission hospital at Neyyoor and one other dispensary, on the ground that the men in charge of other institutions had no government-approved qualification.

[421] Sources: Records of the Medical Mission, 1875, Box.No.2, TR, CWMA.

[422] Koji Kawashima, op.cit., p.130.

The main hospital at Neyyoor was further expanded with the financial grant from the Travancore government. Dr. T.S. Thompson, who succeeded Dr. Lowe, took a keen initiative in this regard.[423] Thus the central hospital at Neyyoor was expanded with an additional building for the patients. During the period 1900-10 the Medical-Mission activities of the missionaries began to spread further. Branch hospitals were opened in Attingal, the most important town between Trivandrum and Quilon, Kazhakkoottam, and Kundara.[424] It was possible for the mission to build hospitals in these prominent towns mainly because to the north of Trivandrum, the LMS gained some support from the Ezhavas and Pulayas, caste groups that were roughly comparable to Shanars and Parayas, while in Trivandrum district another slave caste, the Kuravers, proved to be willing associates of the mission.[425]

Dr.Thompson was further succeeded by Dr.Fry who built a new hospital, formed a new medical class and started a Leprosy-Sanatorium during his tenure. He rendered his valuable service to the Mission in Travancore for about seven years. In 1892, Dr.Fells succeeded him and took keen initiative for the development of the main hospital in Neyyoor. He was mainly responsible for the beginning of a separate sanatorium for the Leprosy sufferers at Alleppey. In 1892 Dr.Arthur Feld took in charge of the hospital and the Mission in Travancore. It was under his initiative that hospitals were opened in Attingal and Karakkonam. Thus by the end of the 19th century there were more than 20 branch hospital under the control of LMS in south

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423 The Annual Report of the South Travancore Medical Mission for the year 1875 describes it "We at that time felt the great necessity---mentioned in former reports—of increased accommodation. Having made this a subject of earnest prayer, we began to build with only Rs.200 in hand, believing that the Lord would hear our prayer and supply our wants. The work was not delayed, for God who is ever the hearer and answerer of prayer, fulfilled to us the promise concerning His Church, Isahia Ix.10, 'Kings shall minister unto thee.' His Highness the maharaja of Travancore, having been asked to head our building Fund Subscription List, enquired what the estimate would be, and generously undertook to defray the whole expense, amounting to Rs.1200; at the same time desiring the Dewan to write expressing his satisfaction with good done by the Medical Mission, and wishing us all success. We now take the opportunity of again most sincerely thanking His Highness the Maharaja for his benevolent act.'...*Annual Report of the South Travancore Medical Mission for the year 1875*, Kerala State Archives Trivandrum.

424 In 1902 it had seventeen outstations. The Neyyoor Hospitals was one of the largest hospitals in Travancore. In addition it also offered a high standard of treatment with sophisticated equipments of the time. Koji Kawashima, op.cit., p.128.

425 Dick Kooiman, "Conversion and Socio-Cultural Chage",op.cit.,p.1.

Travancore.[426] From 1895 onwards annual financial grants were received by these institutions under the medical Mission from the government.[427]

The training of Indian medical men under the initiatives of the medical mission was regarded as one of the factors for the popularity of western medicine in Travancore. A long succession of missionaries was responsible for these developments. Dr. Davidson and Dr. Bentall were some among the pioneers of that time. The mission was under the control of Dr. Pugh until 1923. The Mission developed further and reached an apex under the initiatives taken by Dr. Pugh.

Running hospitals posed a great burden to the missionary doctors. These doctors had to turn their hands to many areas of specialization too. In addition they had to administer the hospital and raise funds.[428] When the annual budget of the hospital began to increase due to the reforms brought about by him, it was necessary for him to charge the patients for surgical operations, and for consultations. This method was firstly introduced in the hospitals of the mission by Dr. Pugh. Thus by 1923, the mission became one of the largest medical missions in the world, having more than 2,00,000 patients visiting it annually. The standard of the hospitals at Neyyoor was the top among all other private hospitals in India during that period.

The Salvation Army, yet another missionary group, had built many centers of medical aid. Yet so dense is the population that all these institutions were only able to touch the fringe of diseases and injuries, and there were plenty of places where the people have a good many miles to walk, or be carried if unable to do so before they reach anyone who is capable of helping them in their need.[429]

The LMS had declared its vision and mission in dispensing western medicine in Travancore by stating that "our chief relation to the government is this that we attempt to co-operate with their medical services, and not to compete. We try to fill

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426 Dr. P Vinacyachndran, *Kerala Chikitsa Charitram* (mal.), D C Books,Kottayam,2001,p.88

427 A regular system of medical grants to hospitals and dispensaries and Vaidyasalas was sanctioned in the year 1895-96 by the government of Travancore. It was done mainly to supplement the aid afforded by the State Medical Institutions and to encourage the practice of medicine by private agency under organized control. V Nagam Aiya, Vol.11 ,op.cit., p.545.

428 David Hardiman, op.,cit.,p.16.

429 Howard Somervell.op.cit.,p.44.

the gaps but running hospitals in places which need them, and by doing the sort of work in our hospitals which the smaller government dispensaries and the private practitioners cannot do with the staffs and equipment at their disposal. Where there are well equipped government hospitals, as at Trivandrum, the capital, Quilon or some of the larger towns, we do not have medical Mission institutions. On the whole, the relation between us and the government medical service is a very friendly one"[430]

The Central Hospital, Neyyoor

As stated earlier, Neyyoor was the cradle where the activities of the medical mission were first started in south Travancore. The Hospital built at Neyyoor developed further under the initiatives of various Mission-Evangelists. The main aim of such a hospital, according to Somervell, was "to cure diseases and relieve pain — and to do so in the spirit of humble, loving service...that all patients, rich or poor, high or low in caste or station, light or dark in the colour of their skins, should receive the best treatment we can give them in the kindest way in which we can give it—that is the object of Neyyoor hospital and its branches."[431]

It was in 1923 that the pioneer of the later developments of the hospitals, Dr. Howard Somervell, took charge of the hospital. He was a member of a team who came for an expedition to the Mount Everest. During his stays in India he happened to visit the hospitals at Neyyoor. This hospital came to be named after him later. In 1923 Dr. Somervell took charge as the honorary surgeon of the hospitals at Neyyoor. His tenure is regarded as the 'Golden Age' of the hospital.

By 1923, the hospital had an in-patient capacity of 80 beds. As the number of in-patients began to increase, there emerged the necessity to have an additional building. Even the women's ward was on the road side in front of the main hospital. And therefore, many of the women hesitated to visit the hospital. Dr. Pugh during his time wanted to construct a separate building for a separate women's hospital near the main hospital.

[430] Ibid.,p.48

[431] Ibid., p.31.

Financial assistance of Rs.10,000 was made by Mrs. Parker's embroidery industry in Trivandrum to construct a separate hospital for women by the Mission. Thus, a new building block was constructed with a facility of 50 beds for the accommodation of women in-patients. After the inauguration of this building, the old women ward in the main hospital became the new 'men's abdominal ward'.

The main hospital at Neyyoor was a common building. On either side of the central hall rows of wards are arranged, and the ward on the south side usually filled, with gastric cases because of ulcers in the stomach and duodenum. To the north, are two wards for cases of accident and injury. Most of the injury cases were admitted here. Adjacent to this, there is a separate block for the operation theatre. The hospital was equipped with a good laboratory.

A prayer house was built in the year 1935. Frequent bedside prayers were conducted with service in the wards on Sundays. While the non-believers were sometimes presented before the prayer, many scenes from the bible were depicted on the walls of the hospital. Thus, according to Hardiman, the hospital wards themselves were meant to demonstrate Christian order and cleanliness, with their beds in neat rows with clean white sheets.[432]

There is a double storied building behind the 'house of prayer'. It was the main consulting room of the missionary doctors. As per the mission records, a consultation fee of Rs. 5 was collected from the person who could afford to pay that amount, irrespective of any caste, religion or section. But no criterion was ruled out for determining the rich and the poor. This means that the consultation fee might have been collected almost from every patient who visited the hospital.

Well qualified doctors were appointed in the hospital. Next to this consultation room, there is a pathological laboratory. Above the laboratory and the consulting room there are two airy wards, where treatment for the better classes of the Indian patients, were given. A fee of Rs.3 had to be paid for stay in the ward. Behind the two storied building, a large veranda was used as the medical ward. However, this ward was mostly occupied by the common people of the society. They, perhaps, could not pay Rs. 5 for a stay in the special ward. So, contrary to the argument of the mission

[432] David Hardiman,op.cit.,p.16

authorities, patients were treated according to their class, particularly on the basis of financial stability.

An old fashioned building on the northern side of the ward was used for the treatment of cancer patients. This cancer ward was equipped with the facilities like radium treatment, X-ray and diathermy. It is to be noted that according to the hospital records, about half of the surgical operation performed until 1930 had been related to the treatment of cancer.[433]

An electricity engine room was situated to the west of the entire hospital building. It was necessary to store the vaccine and sera and to produce ice and pump water into tanks etc. And at the lowest side of the entire hospital compound there was a row of kitchens. A playground was constructed at the western most portion of the hospital compound.

Much of the nursing had to be done by the relatives of the patients. By 1923 there were only five male and six female nurses. Miss. Hacker was the nursing superintendent. This indicates that there was a severe shortage of nursing assistants and other medical trained staff in this hospital. Within a short span of time, the hospitals at Neyyoor became one of the largest hospitals under the control of the London Missionary Society in the World.[434] All kinds of treatments with sophisticated methods were available in the hospital.

One of the reasons behind the increase in the number of patients was the appointment of Indian doctors in this hospital. This was done mainly because the Mission realized the need to ensure service of the Indian doctors in their hospital particularly because of the native's faith in them. Hence, the out-patients were seen by one of the Indian doctors, and those who require admission to hospital were directed to their respective wards. Many of them who live nearby were sent home with some medicine or advice; but a great number may have come from 100 or 200 miles distance, with perhaps a serious disease to be treated, or some complaint that requires

[433] Howard, Somervell, op.cit., p.44.

[434] Dr.P.Vinayachandran, op.cit., p.89.

operation to cure it. We have even had patients who have come over 1000 miles to get the treatment from Neyyoor.[435]

Church Mission Society and the Medical Mission

The CMS had also rendered valuable service in providing European medical care to the people of Travancore during the colonial period. However, it could not send missionaries regularly to Travancore and therefore medical institution under their control were very few in number. In 1870, the CMS medical mission established dispensaries at Kannankulam, Mavelikkara, and Thiruvalla. G J Kuruwella, a prominent medical evangelist of the CMS group was in charge of the dispensary built in Thiruvalla. In the same year this dispensary treated 1,134 patients.

Apart from dispensary services the CMS doctors had also undertaken certain medical activities among the tribal people.[436] A tribal group called *Arrians* had received medical relief from the CMS medical men, and medicines were obtained for this purpose from the government as well as the Medical Missionary Association, a body constituted for medical relief by the missionaries during this period. Tribal people were yet another group who were left by the government without any medical care. In 1930, they also started two floating dispensaries to provide faster medical care to the needy people. They arranged such dispensaries within a boat which travelled through the backwaters of Travancore with medical relief.

The Church Mission Society had also sent some of their medical men to other parts of India. By 1880, they built mission hospitals in the north-western frontier of India. This indicates that this group was mainly concentrating in such areas where medical relief hardly reached before. It might be one of the reasons why CMS had a fewer number of medical institutions in Travancore and other southern parts of India.

[435] Howard Somervell, op.cit., p.50.

[436] Koji Kawashima, op.cit., p.137.

The Salvation Army and the Medical Mission

The Salvation Army was yet another group of missionaries who came to Travancore in the colonial period. They initially had built up a huge hospital at Nagercoil.[437] They built up several dispensaries in different parts of Travancore. Hence, undoubtedly, they contributed much to the institutionalization of Western medicine in Travancore. They also had got sufficient consideration from the ruling Rajas of Travancore. The Salvation Army started their medical activities in the year 1893 itself. It was particularly initiated by a generous man called Harry Andrew, who was sent to Nagercoil at the age of seventeen. His knowledge on curing certain ailments was a beneficiary factor for the entire mission as it later attracted the local people towards the mission.

It was with the opening of the Catherine booth dispensary in Vadassery, south Travancore that the Salvation Army formally launched its medical mission activities in south Travancore. Within a short period of time the dispensary developed in to a booth hospital. Dr. Percy Turner[438] one of the missionary doctors was behind this success. Like the LMS hospital at Neyyoor, this hospital became one of the major hospitals in the entire Travancore area during that period. He arrived in India in 1900 and took charge of the dispensary very soon. He wanted to transform the dispensary in to a hospital as soon as he took charge of it. After laying the foundation stone in 1901, the hospitals were later built in about seven acres of land including seventeen buildings consisting of a ward to accommodate at least 60 patients and an operation theatre with modern facilities and a laboratory for various pathological purposes. A special grant of Rs.50 per mensem was given in aid of this hospital under Salvation Army.[439]

In 1919 the hospitals were further developed by having four branch hospitals and twenty three medical officers, thirty compounders and a number of nurses to cater the needs of the population of South Travancore with regard to Western medical

[437] The Salvation Army established its headquarters in Nagercoil in November 1892 and hence, very soon they extended their activities to other places viz. Thiruvalla and Mavelikkara.

[438] Dr. Percy Turner was born in 1870 and was later brought up in the Church of England.

[439] TAR for the year 1901-02, Government of Travancore, Trivandrum, p.46.

care.[440] The Salvation Army also paid attention in training Indians for the assistance in the medical service. It was probably because the mission authorities wanted to avoid the foreignness of western medicine and in order to attract the indigenous people towards it. At the end of this year, separate medical course was started with financial aid from the Maharaja of Travancore. The main purpose of the medical course was to produce sufficient staff required for the service in the main as well as branch hospital of the Army in Travancore.

Apart from the students from their own church, some of the private students were also given admission to the medical school in that period. The 'Army' also gave importance in constructing hospitals and dispensaries particularly in malaria-stricken areas of the state — particularly in the areas like Bhutahppandy, a place between Thodupuzha and Nagercoil, which was a malaria-stricken place in Travancore during that period.. The Travancore government could not provide much health care facilities to these areas as the state machinery was incapable of doing it because of the insufficiency of the facilities to provide medical care to the whole section of people.

The out-patient profile of the Catharine Booth hospital itself is apparent evidence in this regard. According to the out-patients records of the hospitals from January to September 1905, 3,047 out-patients visited the hospital for treatment.[441] According to Kawashima, this was particularly due to the special attention of the hospitals for caste Hindus.[442] He further says that because of such things, the hospital attracted a large number of high-caste patients and this was extremely favorable for their religious activities, particularly.

The Salvation Army had got much patronage from the rulers of Travancore. In addition to the fixed financial grants, a huge amount of donation was made from time to time to the Army. For instance, in 1912, his Highness Sree Moolam Thirunal donated an amount of Rs. 3,350 in the name of his consort for the erection of a new men's ward in the hospital. These kinds of donations along with other activities apparently succeeded in spreading the ideas of the ruling raja being a supporter of

[440] Koji Kawashima, op.cit., p.134.

[441] Ibid., p.135.

[442] Ibid., p.135.

charity. Hence, it is apparent that the Travancore Raja viewed charity as a symbol of modernity during the colonial period.

In 1922 the thatched walls of the first ward were replaced by a solid masonry block and half the cost was borne by the palace. Other donations also were made to the hospital. For instance, in the same year, the Maharaja of Travancore donated a 'tri-wheeled motor' which was the first of its kind in Travancore.

In 1934, a new administrative and out-patient block was opened by C P Rama Swami Ayer. The ruling raja Sree Chitra Tirunal had donated Rs. 10,000 for the construction of this block. The state seems to have expected Salvation Army to provide medical care especially to the poor people in the villages, whom the government institutions were not always willing to deal with, although a large number of high castes were treated there as well.

However, by patronizing medical activities and institutions, the ruling Rajas of Travancore were able to gain the reputation of being charitable rulers within the convention of Hindu society and dharma. In this sense, the donation of the 'tri-wheeled motor', which greatly advertised the Maharaja's charitable nature, was aptly symbolic.

Unlike education, government institutions dominated medical activities in Travancore in the beginning itself. In the year 1870-71, for example, government institutions treated more than five times the number of patients treated in the LMS institutions. In addition, the number of patients treated in government institutions increased far more rapidly than in LMS institutions.

Year	Government Institutions	LMS Institutions
1870-71	66,757	12,046
1880-81	92,419	n/a
1890-91	1,20,883	n/a
1900-01	4,38,433	66,996
1910-11	5,43,345	1,13,203
1920-21	9,40,170	1,18,144
1930-31	19,75,328	1,45,532

Table 25: ***Number of Patients treated in Government and LMS Institutions***[443]

It is true that there were several institutions run by Christian Bodies other than the LMS institutions. The CMS started a Leprosy Sanatorium in 1871; Roman Catholics had a hospital and dispensary at a place called Manjummel; the Church of England Zenana Mission had a dispensary at Trivandrum; and the Salvation Army started medical activities from the late nineteenth century. But the number of patients treated in the Christian institutions was very small compared to that of the government institutions.

The other medical missions also treated various numbers of patients every year. As is shown in the table given below, the number of patients treated in the aided Christian Institutions in 1896-97 was 22,055, while government institutions treated 3,33,199 patients in the same year.

[443] Travancore Administration Reports for Various Years, viz. 1870-71,1880-81,1890-91,1900-01,1910-11,1920-21,1930-31.(The year shown here is a Malayalam year which begins in August every year. The figures of the LMS institutions are for 1871, 1881, 1891,1901,1911,1921, and1931 respectively.)

Name of the Institution	Number of Patients
LMS Hospital Neyyoor	8,659
Roman Catholic's Arch Bishop's Hospital	10,818
CMS Leper Asylum, Alleppey	24
Zenana Mission Dispensary	2,554
Total	22,055

Table 26: ***Number of Patients treated in the Aided Christian Institutions in 1896-97.***[444]

In addition to the desire of the state to express its Hindu Charitable role, a strong public demand for Western medical aid was also one of the reasons that promoted the development of western medicine in Travancore. In the year 1886-87, for example, the administration report of Travancore stated that 'numerous petitions have been received for opening new hospitals and dispensaries in different parts of the country. At the *Sree Moolam Popular Assembly*, demand for the opening of medical dispensaries was frequently raised.[445]

The state, therefore, was compelled to respond to such demands from the Assembly members and hence this resulted in the establishment of more dispensaries in different parts of Travancore. Ultimately, this resulted in the rapid increase in the number of patients treated in the government institutions. The necessity to respond to the growing public demand for medical aid was undoubtedly one of the principal reasons the state supported the medical missions rather generously.

[444] TAR for the year 1896-97,Government,Government of Travancore,Trivandrum,p.161

[445] TAR for the year 1880-81, op.cit., p.117.

The Rockefeller Philanthropy: Public Health and Sanitation

The Rockefeller foundation arrived in India after the First World War.[446] It was instrumental in the founding of an all India School of Hygiene and Public Health in Calcutta.[447] In 1928, the Travancore government approached the Rockefeller Foundation to extend their help in organizing a public health department with modern equipments. Hence, two public health experts of the foundation visited Travancore accepting their request from the government.[448] They found the region was conducive for their public health program after a survey was done. They understood well the positive factors about the native state like increased literacy, wide circulation of newspapers, and the availability of numerous hospitals and dispensaries. The members of the foundation considered these facilities as an advantage for the functioning of their organization. Moreover, prevalence of certain epidemics like cholera and malaria provided further opportunity for the foundation to launch their program within no time.

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[446] The Rockefeller Foundation established by the oil giant 'The Standard Oil Company' started their effort to develop public health philanthropy in the USA. In 1909 they founded the Rockefeller Sanitary Commission for the eradication of Hookworm disease. Their initial concern was with southern USA where they tried to 'expand southern agricultural productivity, and prepare southern whites and blacks for industrialization in largely northern-owned mills and factories. For this purpose they sought to diffuse education and public health in the South. But soon their attention went to the rest of the world as well. In 1913, International Health Commission was created, and the hookworm program was extended abroad. In 1914 they began a campaign against Yellow Fever, and in 1915 another campaign against malaria. They also helped to create a number of schools at Harvard University and elsewhere to train personnel in public health. The London school of Hygiene and Tropical Medicine was established by them in 1923.Thus from the early 20th century, the public health of people in developing countries became an increasing concern of the capitalists in USA. Improving the public health of people in developing countries was considered important for 'neo-colonialism' or the 'informal empire' which supplied raw materials to the developed world and also provided consumers for western commodities. Although the relationship between Rockefeller Foundation and British Imperialism is not very clear, there seems no doubt that the British, who did not have ample resources, largely tried to utilize its activities in India. Koji Kawashima, op.cit., pp.122-23.

[447] M Kabir, 'Beyond Philanthropy: The Rockefeller Foundations Public Health Intervention in Tiruvitamkoor, 1929-39', *Working Paper No.350*, Centre for Development Studies, Ullur, Trivandrum, p.12.

[448] Dr.Heiser, Director (for the Eastern Countries) of the International Health Division of the Foundation and its Madras representative Dr. Kendrick along with Dr.Jackocks,a public health expert who was the health expert of the Foundation for Ceylon were the members of the Foundation who visited Travancore.Ibid.,p.12.

The foundation arrived in Travancore as a part of their propaganda of public health and sanitation, internationally.[449] The annual report of the Foundation says that in 1929, the Rockefeller Foundation, through provision of funds, supervision, and training opportunities, aided in developing local health work in eighteen foreign countries and in the United States.[450] By the time the foundation reached Travancore, the health care facilities of the state was well advanced. In 1928, there were 30 hospitals and 38 dispensaries under the control of the Travancore government and 18 grant-in-aid medical institutions under the control of missionaries and other private agencies. Among these, fourteen hospitals were run by different medical missions.

Apparently, the State had well-equipped infrastructure facilities to dispense western medicine in the state.[451] And therefore, the foundation after their arrival found no difficulties in functioning in such a state with enthusiasm. Vaccination against smallpox was one of the main tasks of the Government as well as the mission agencies to encounter smallpox epidemic. Vaccination against smallpox, as discussed in the second chapter, was one of the ways through which Western medicine sought its appearance in the native state. The public health laboratory established in the year 1921 was not only producing vaccines but had been conducting various tests as a part of prognosis and diagnosis of various diseases in the hospitals and dispensaries in Travancore .

So, at the instance of the Rockefeller Foundation representatives, the Travancore government wrote to the president of the foundation on 1st June 1928 to lend the services of two of its experts in sanitary engineering, to Travancore.[452] One

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449 The Foundation's first serious commitment in India was in the Madras Presidency in the early 1920s. Their main concern was with the hookworm problem in the Presidency, where more than 70 percent of the population was infected by the worm. Treatment was first carried out in the plantations and then extended to the other parts of the presidency. Apart from the Hookworm Surveys, the foundation helped the Madura District Board in the madras Presidency conduct rural health work, including sanitary education and the construction of public latrines. Koji Kawashima, op.cit.,p.123.

450 *The Rockefeller Foundation Annual Report for the year 1929*, published annually by the Rockefeller Foundation, 16 Broadway, New York, 1929, p.111.

451 At least in Travancore, medical institutions were well developed compared with other parts of India, and therefore Travancore may have been considered an appropriate place for the Rockefeller Foundation to demonstrate its philanthropy...Koji Kawashima, op.cit.,p.124.

452 File No.1447, Public Health, General Section, Kerala State Archives, Trivandrum.

of the reasons for the request by the Travancore was the cholera epidemic of 1927-29 which tolled 10,727 people's deaths in Travancore.[453] In fact, cholera repeatedly took a heavy toll, and combating the disease was one of the main objectives of organizing a new Public Health Department.[454] Hence, Dr. Jacocks was appointed as the public health expert for Travancore, but rejected the demand for a sanitary engineer.

Under the initiative of Dr. Jacocks, a public health program was suggested to the government of Travancore to be immediately implemented in the state. He suggested mainly for the codification of the public health law, allowing provision of fellowship for imparting rigorous training in public health, public health education, survey and treatment of the hookworm disease, conducting malaria and filariasis surveys, sanitary engineering etc. On his arrival in Trivandrum, Dr. Jacocks was granted the status and position of the head of a major department in the state with the designation 'Honorary Advisor, Public Health'.[455] Hence the Travancore Government provided the assistance of a Medical Board constituting of a three-member committee. After many revisals, the public health plan was finally drafted in October 1929. The most important aspect regarding the new plan was that it included measures for the maternity of women and child welfare. In the same year, the Travancore government allocated a sum of Rs.60,000 for its immediate implementation.

In 1930, the suggested working program was put into operation. It was a very comprehensive and advanced program and comprised a hookworm treatment campaign, public health education, epidemiological and vital statistical investigations, health unit work, and medical entomology and plague control measures.[456] The main tasks of the newly formed public health department was to maintain statistics, control epidemics, render smallpox vaccination service to the public, provide vaccines for other diseases like cholera, malaria and typhoid, execute plague control programs, and conduct surveys for filariasis and typhoid along with malaria.[457] In 1929, The

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453 Koji Kawashima, op.cit., p.124.

454 T K Velupillai, *The Travancore State Manual,*Vol.III,pp.775-6

455 M Kabir, op.cit., p.13.

456 Koji Kawashima, op.cit., p.125.

457 TAR, for the year 1938-39, Government of Travancore, Trivandrum, p.175.

Foundation sent two doctors for training in John Hopkins at Baltimore. The total expenditure for their training was shared equally by the Travancore government and the foundation.[458] Moreover the foundation also awarded six foreign and Indian fellowships for those who dealt with public health work. One of the doctors sent for the training later became the director of public health in 1935 after returning to Travancore. The other doctor was appointed as responsible for conducting public health works at Neyyatinkara which later turned up to be a very successful venture of the Foundation in Travancore.

The health unit work at Neyyatinkara was one of the most important activities of the Foundation during that period. This unit was, according to Koji Kawashima, a comprehensive rural health organization which covered an area of 40 square miles with a population of 73,340.[459] The functions of the health unit, as laid by the foundation representatives, were diverse which included diagnosis and treatment of infectious disease, midwifery services, school medical inspection, food and milk inspection, vaccination against smallpox and typhoid, treatment of hookworm and malaria and study of epidemic diseases, supervision of latrine construction and collection of vital statistics.[460]

This health unit was serving as a demonstration and training centre for health workers for years in Travancore. Although a number of agendas were planned earlier, only midwifery services and school medical inspections along with child care was given special attention. So in those areas, the Foundation could show a progressive effort in providing services to the public. One of the advantages the Foundation got in Travancore was that the rural areas were not much covered by the public health and medical services under the initiatives of the government.

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458 M.Kabir, op.cit., p.14.

459 Koji Kawashima, op.ci.t., p.126.

460 The main reason for selecting Neyyatinkara for their activities was because the place was a semi-urban area. For choosing an appropriate location for the health unit, the Foundation representatives laid down specific criteria, and after considering the alternatives, Neyyatinkara, a nearby area of Trivandrum town was chosen in 1931. The initial coverage of the health unit was only 28 square miles with a population of 39,580, but was raised in 1933 to 40 square miles and more than 73,000 population, to maintain definite standards as followed by health units elsewhere. M.Kabir, op.cit.,p.26.

Training for midwives and public health nurses were conducted in the Foundation and those who had successfully completed training were designated to make house visits, registration of pregnant women and handle delivery cases. An important aspect in this regard was that at least one midwife was appointed for each revenue village. In 1931, only 19 deliveries were attended by the midwives of the Foundation. Nevertheless in 1939, more than 38 percent of the delivery cases were attended by the midwives. This shows a rapid growth of the functioning of the Foundation throughout Travancore. As a result, the maternal mortality rate per thousand births came down to an average of 3.98 in 1937-40 from 8.94 during 1931-34.[461] Thus, through various measures adopted by the Foundation, the policy and philosophy of the Foundation on medicine and public health was successfully implemented in Travancore within a short span of time.

The Neyyatinkara Health Unit provided the foundation ample scope for carrying out their studies and surveys for various diseases.[462]As a part of their school inspection, students were examined continuously for enlarged spleen and for hookworm. Besides medical advice, even drugs were provided to those who had been found infected and hence this opportunity was utilized by the Foundation to collect as many samples as possible for their further research and studies on diseases.

In 1935, the Travancore government suggested the opening of a new health unit of the Foundation at Shertalai. But the Foundation rejected the program and declined the request from the government. The Foundation, however, expressed its willingness to provide half of the cost required for the opening of a new unit in Shertalai .There can be no doubt that this unit produced a large number of health workers and that these workers contributed considerably to the development of public health in Travancore and hence in today's Kerala.[463]

Public Health education was yet another important venture taken up by the Foundation in Travancore. The total number of lectures and talks on public health

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461 Ibid.,p.27.

462 Ibid.,p.27.

463 Koji Kawashima, op.cit.,p.126.

given in the year 1938-39 was 1,044 to an estimated audience of 1,45,000 persons.[464] Lecture series on bored-hole latrines was carried out mainly in rural areas. Public health exhibition along with pamphlet distribution were also conducted in different places of the health unit. In the year 1938-39, the Public Health department also had purchased films on public health in order to exhibit them to the public.[465] Thus the Neyyatinkara Health unit of the Foundation had become a model for the whole public health program of Travancore for the years ahead.

The Hookworm campaign of the Foundation was yet another effort taken by them to expand their 'empire' into more developed countries. As started earlier in the plantations of Ceylon, the hookworm campaign had later been extended to Travancore also, as it was Foundation's one of the initial agenda to meet with success. Thereafter the Foundation was carrying on further researches to encounter the problem with the use of drugs. A study made in Trivandrum in 1921 had put the incidence of the disease at 63 percent and a general survey to assess the incidents of the disease across the state was considered an important necessity before certain control measures were adopted by the foundation.[466]

Thus, on 6th February 1930, a state-wide survey was started under the direct supervision of the Rockefeller Foundation and the result was that the Foundation came out with a conclusion that more than 93 percent average incidence of hookworm infection were there among the people of Travancore. Despite various advancement achieved by the State in the field of health and medicine, as it was claimed, the findings of the foundation posed a major threat to the governments' claim. The foundation adopted various methods to combat the disease by using various forms of drugs.[467] It was mainly because the representatives of the foundation had a clear

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464 Ibid., p.126.

465 TAR, for the year 1938-39, Government of Travancore, p.178.

466 M. Kabir, op.cit., p.15.

467 The method adopted by the Foundation, in order to combat the disease was an overwhelming attempt as it attracted large masses of the region to co-operate with the venture. In order to ensure the efficacy of the drug, at the central prison, thirty long-term prisoners representing 13 occupations and sixteen different Taluks were randomly selected by the foundation. Two course of test treatment as an experiment were administered in them with a mixture of the oil of *Chenpodium* and *Carbon tetrachloride.* Faecal and blood samples were collected before and after the treatment to ascertain the result. Ibid.,p.16;also see, *Annual Reports of the Rockefeller Foundation* for various years.

understanding that the control of the disease was possible only through long-term measures. The foundation came out with the findings that the host of the disease was transmitted through human excreta and entered the body from the contaminated soil through the bare foot. But permanent control required a long time to accomplish, and in the meantime temporary control was possible by instituting mass treatments at periodic intervals.[468] By about 1930, the activities of the Foundation were extended to the general population.[469]

The large proportion of the population on whom the drugs were administered was proof enough to understand that the venture of the Foundation was quiet a successful one in Travancore. Thus, a huge number of people underwent treatment under the auspicious of the Rockefeller Foundation in Travancore. The strength of the staff in their Foundation to execute the above furnished activities included one assistant surgeon, four public health nurses, seven sanitary inspectors, eleven trained midwives, one clerk and two peons.[470]

With the encouragement of the Rockefeller Foundation, the bacteriological laboratory, the vaccine depot (established in 1889 and under the supervision of the sanitary department), the chemical examiner's section (established in 1890 for chemical-legal examination of poisoning), the public analyst's section, and the anti-rabic treatment were all brought under the supervision of the Public Health Department. Earlier these services were considered a matter of medicine and sanitation. In the 1930's especially after the functioning of the Foundation, these concepts changed and those issues were considered as a matter of public health.[471] Such a re-organization of the bacteriological department further helped conducting faster and qualitative surveys for diseases like malaria, plague, hookworm, and

[468] Administration Report of the Honorary Advisor, Public Health Department, Travancore for the year 1930-31,Public Health Department, Government of Travancore,Trivandrum,1931,p.4.

[469] Programs of the Foundation included rigorous campaigns with wall posters, handbills and news paper notifications etc. The local revenue authorities arranged lantern lectures in the evening, preceding the day of treatment and supplied specimen tins to those gathered. Faecal samples before and after treatments were taken for examination and the result recorded to assess the effect of the drug. M Kabir,op.cit.,p.16.

[470] Ariane Yechuoran, *A Social History of Public Health and Medicine in Kerala*, Thesis Submitted to the Committee on History and Science in partial fulfillment of the requirements for the degree of Bachelor of Arts, Harvard University,Cmbridge,Massachusetts,1980,p.54

[471] Ibid., p.47.

filariasis in 1930. Surveys and other remedial measures were undertaken by the Foundation along with the Public Health Department of Travancore in a number of areas including Karthikapalli, Paravur, Pathanapuram, and Kottarakkara, and also in the Trivandrum town. The effectiveness of reducing the incidence of filarial by destroying its vector was demonstrated at Shertalai.[472]

In the collaborative works of the Foundation and the Public Health Department in Travancore, even the local communities and the Municipal authorities were asked to share the responsibilities. As a result, half of the total expenditure of a particular program was shared by the municipalities too. Ultimately it paved the way for the extension of the filarial program to many more areas in Travancore.

Malaria, Filariasis and Plague Eradication program

Malaria was one of the scourges due to which tens and thousands of people lost their lives. From 1932 onwards numerous surveys were conducted by the Public Health Department under the supervision of the Foundation representative, Dr. Jacocks in different taluks of Travancore and as a result an efficient and proper mosquito eradication program was implemented in the required places under the auspices of the Foundation and the Public Health Department. Another important activity as a part of this was the establishment of a malaria field station at Kulasegaram.[473]

Repeated outbreak of malaria was one of the main reasons for the Public Health Department to strengthen their campaign with the help of the Foundation. A severe epidemic of malaria broke out in 1935 as in other years past. Numerous treatment centers were opened as a part of the encounter program. And, in 1936 the entire section of the Public Health Department devoted their sole responsibilities to encounter malaria with the help of the Rockefeller Foundation. The medical department opened new dispensaries in various places concentrating solely on malaria epidemic.

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[472] Ibid., p.48.

[473] Ibid., p.49.

The Public Works Department also strengthened their efforts by constructing many new roads so as to make easy access to the dispensaries and hospitals for the public. The malaria Relief Committee of the Medical Association, through voluntary contribution, raised funds for the feeding of school children in deprived areas. An average of, 5,405 children were fed each day. The activities of the department and other organizations were supervised during that time by a special malaria officer from the Public Health Department.[474] Unlike the previous sanitation department in the State, the newly formed Public Health Department could easily coordinate the functioning of the whole sections of the department, which could perform better health-relief work compared to the previous years.

It was mainly because of such coordinating activities of the Public Health Department of Travancore, that the plague epidemic could be more or less controlled in Travancore without causing much mortality compared to other parts of India. Plague had struck India severely in the last decades of the nineteenth century.[475] In the period 1898-1939, 23 million deaths were caused by plagues in India.[476] Travancore did not suffer from plague as much as other states suffered, mainly because of the stationing of experts to monitor at ports and other entry points to restrict the infected persons from entering the state.

However, there were meager occurrences of plague in Travancore during this period. In 1932 plague afflicted thirty six persons in Peerumedu among them seventeen had died, while others suffered a lot. The public health department along with the Foundation started research and wide varieties of actions were adopted like rat destruction campaigns, house disinfection, rat hole fumigation, disinfection of all imported items and mass inoculation as well as observation centers to eradicate or if impossible, at least control the epidemic in Peerumedu taluk.[477]

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474 T K Velupillai, *The Travancore State Manual*, Vol.III, Government of Travancore, Trivandrum, 1906, pp.777-78.

475 For more details on plague and its impact on Indian Society, see, Ira Klein, 'Death Inida,1871-1921',*The Journal of Asian Studies*,Vol.32,No.4(Aug.,1973),pp.639-659; 'Plague Policy and Popular Unrest in British India', *Modern Asian Studies,*Vol.22,No.4,(1988),pp.723-755.

476 S.Chandrasekhar, *India's Population Facts and Policy,* Indian Institute of Population Studies, Annamalai, 1940, p.106.

477 Ariane Yechouran, op.cit., p.50.

The spread of plague from the neighboring territories of Cochin to Alleppey in 1936 provided the Foundation representatives an opportunity to continue with the rodent studies.[478] The Foundation representatives suggested, much to the harassment of the trade, the stoppages of all trade at Alleppey as means of controlling the disease. Unfortunately, the Travancore government rejected the proposal on the grounds that stoppage of all trade relations with Cochin would divert the trade from Alleppey, the major port town of Travancore. Instead the Government suggested, with the concurrence of the Foundation representatives, mass inoculation, fumigation, of the goods that passed through and de-ratting of the canal boats and launches and even declared a financial reward for those who killed the rat population[479]

The public health officials, under the direction and supervision of the Foundation representatives, started a detailed survey of rats and fleas with a view to study the influence of climatic changes and seasonal variation on the rats and fleas and variations of flea index according to hosts. Although such campaigns were later extended to other parts of Travancore, the rat's fleas survived the control measures and, in 1940, plague appeared not only in Alleppey but also in Quilon, another major trading port of Travancore. This proves that despite vigorous attention made by the Foundation as well as the Public Health department epidemics like plague repeatedly caused mortality in Travancore.

Dr. Jacocks also contacted the Director of Public Health in Madras to encourage actions against plague in the infected regions of Madras bordering on Travancore.[480] Hence, those campaigns were extended to the other parts of Travancore also.

Thus, Travancore witnessed tremendous innovation in Public Health especially after the arrival of the Rockefeller Foundation in the State. The reorganization of the Public Health Department was one of the innovative attempts done after the arrival of the Foundation. Research on different diseases which were

[478] M. Kabir, op.cit.,p.24.

[479] Ibid., p.24.

[480] Report of the Rockefeller Foundation in Travancore for the Second Quarter, 1932, Trivandrum.

initiated by the Foundation was more helpful in encountering major epidemics like malaria, plague and even cholera to a great extent.

The Public Health department also gained the ability to coordinate the works of other departments also.[481] The foundation activities in Travancore were regarded as a model for the entire public health work of Travancore. However, the public health work at Neyyatinkara created a controversy in the state because of the impossible demands it placed before the Health Department of the state.[482] Nevertheless, from the government's point of view, it was a successful venture. It shows that the state never wanted to share much responsibility in providing public health to the public particularly as it posed severe financial burdens for the state. But according to the Foundation, the venture in Travancore was a failure.

The state had a clear vision of what it needed while inviting the Foundation to Travancore. The state mainly wanted to meet the local needs in Public Health particularly to encounter the major epidemics like malaria and cholera through proper sanitation works. Whereas the Foundation's agenda was to mould the people, by making them free from the epidemics for neo-colonialism.

Public Health and Sanitation: State Patronage.

According to the available records, it is apparent that the Travancore Government had some interest in developing public health and sanitation works in the state by being an ally with the private agencies. The invitation of the Rockefeller Foundation was a part of this agenda of the government. The Sanitary Department was founded in the year 1895-96. The department had the responsibility of performing certain tasks like the registration of vital statistics, vaccination against severe epidemics, management of epidemics and rural sanitation etc.

The initial activities of the sanitary works in Travancore included only smallpox vaccination and sanitation. Vaccination Department, as discussed in the previous chapter, was working vigorously in Travancore during this period. In 1865, Dr. Pulney Andy was appointed as the Superintendent of the vaccination department.

[481] Araine Yechouran, op.ci.t, p.60.

[482] Ibid., p.60.

Hence, Andy had to supervise the activities of the entire vaccination department in Travancore.

Thus, Pulney Andy rendered powerful supervision over about twenty seven subordinate vaccinators and suggested improvements in sanitation also.[483] The Travancore government was more enthusiastic in encouraging Jennerian Vaccination either as a part of their modernizing vision or as their benevolence to the British paramountcy during the 1800's. Thus the Royal Proclamation of 1878 further encouraged vaccination with cowpox matters by making it compulsory for all public servants, students, convicts and patients in hospitals and dispensaries and children of the schools. Thus, till 1880, the main sanitation works in Travancore included vaccination against smallpox and other little works on public sanitation.

It was in the period 1880-81 that the preliminary sanitation works in the real sense of the term was started in Travancore. As a part of that a committee was formed to study adopting appropriate measures for the improvement of Trivandrum town as the capital. As a result the following recommendations were made by the committee.

- Construction of Public Latrines.
- Transportation of night soil to safe distances.
- Guarding water tanks and Feeding Channels.
- Proper supervision of burials and cremation grounds.
- Relocation of Fish markets to preferably un-crowded areas of the town.

The government accepted those recommendations and temporarily appointed a sanitary commissioner to execute those recommendations as immediately as possible in the state.

Later such activities were being recommended to extend over other places like Kottayam, Alleppey and Quilon. The government had promised that the total expenditure would be equally shared by the government and the community simultaneously. A town improvement committee was later created for supervising

[483] Araine Yechouran, op.cit., p.36.

those activities in various towns. The government also took initiatives to launch rural sanitation in the same year by constituting conservancy establishments in various villages of Travancore.

It was due to the repeated outbreaks of epidemics like cholera and malaria that the government was compelled to create such conservancy stations even in rural areas. Moreover, this occurrence of epidemics made the government to think about further expanding the sanitary organization in the state. Thus in 1895 a Sanitary Department was established with a clear mandate.

As the State Manual puts it, "*the department will be under the control of a professional officer styled Sanitary Commissioner, who will be in direct communication with the Government. For purposes of this department the whole country would be divided in to four districts and an Inspector will be appointed to each district whose duty will be (1.) to superintend and check the vital statistics throughout the district, (2.) to attend the sanitation of all parts of the districts where the Town's Improvement's Regulation is not in force,(3.)to study and report on the state of public health within this districts; to superintend the vaccination work and (4.) to be sort of travelling dispensary, actually conveying medical aid to the door of the poor villager.*"[484]

Additional staff for sanitation work were created and appointed wherever necessary. Special sanitary measures were instituted for fairs and festivals since they attracted large numbers of people from outside the state who carried these diseases.[485] The establishment of a medical department and the disbandment of the already exiting vaccination department was yet another activity of the State in 1895.

The organization of the sanitary department in 1895 initiated with a view to provide for the registration of vital statistics, offered itself as a fitting opportunity for placing the conservancy duties, and all conservancy establishments were transferred to the direct charge of the sanitary commissioner.

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[484] V Nagam Aiya, Vol.III, op.cit., p.525.

[485] Arine Yechouran, op.cit., p.38.

In the beginning of the 20th century, entire Travancore was divided geographically in to vaccination regions for a smooth implementation of the cowpox vaccination scheme. House to house vaccination was one of the important features of that time. Unlike in other parts of India, vaccinators made house to house visit for vaccination, although the venture was not a completely successful one. At the end of the century certain reforms were brought about in the Town Improvement Committee for its further emancipation. In line with the Municipality Act of British India, the committee became elected bodies with the power to tax the community in order to supplement their grants for sanitation provided by the government.[486] Thus the government sought the way to raise the funds required for the expenditure by imposing and collecting tax on the people of the municipal areas.

The Sanitary Department thus started functioning, placing their emphasis on the provision of wells and the improvement of water supply, and later paid attention to the construction of latrines in public as well as private places. Rs.5000 was sanctioned each year since 1907 for the purpose-particularly for sinking and maintaining wells. By that time the government had an understanding that it was the poor sewage facilities that caused the occurrences of cholera and other pandemics in the state. Hence, special attention was given for chlorinating and cleaning wells as well as water supply sources.

Thus according to the census of 1910, "*the attention paid to sanitation and conservancy throughout the state, the precautionary measures taken against the outbreaks of epidemics, the arrangements made for supervising fairs and festivals where cholera prevailed because of crowded unsanitary conditions and infected water, all had a positive effect on reducing the prevalence of cholera."*[487]

The functioning of the town improvement committee was further developed in the succeeding years also. In the year 1909-10, three new Town Improvement Committees were also formed, at Aluva, Kayamkulam, and Thiruvalla. Prevalence of cholera and smallpox in a severe form in Nagercoil and in various parts of Trivandrum posed a major threat to the functioning of the committee as these

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[486] Ibid., p.39.

[487] *Census of Travancore, 1910*, Government of Madras, 1910, p.64.

epidemics needed much attention, the Committee could not decentralize their activities to more areas.[488]

From the beginning of the 20th century until the arrival of the Rockefeller Foundation in 1927, the sanitary department intensified its vaccination and sanitation activities. When they began to increase the facilities in the Medical Department, the staff of the Sanitary Department stopped providing their service in the field of Medical Relief.[489] Nevertheless, they had undertaken other activities in cooperation with the public works department, and hence started the school medical inspection during the same period.

As per the education code of 1909, the following conditions were to be met while opening or running a school either by the government or by the private agencies. The site of the school, plan and sanitary condition of all school buildings had to be approved and all English and vernacular higher grade schools had to be accommodated with latrine and scavenging.[490]

As a result, in the year 1921-22, there was almost a relief from epidemic diseases in the state.[491] There were, however, two cases of cholera reported during the year, of which one recovered and the other imported from British India proved fatal.[492] Occurrence of smallpox posed a major threat to the sanitary department during that year. Although the state had achieved immunity against almost all epidemics found in the state in that year, smallpox was an exception for which vaccination was the only method to prevent.

By that year there were a total of twenty seven conservancy stations including the newly opened one in Todupuzha. In that year 438 wells were hankinized and measures were adopted to protect them as far as possible from subsequent pollution. Measures were also taken to educate the public with regard to sanitation. As a part of

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488 TAR, for the year 1909-10, Government of Travancore, Trivandrum, p.41.

489 Araine Yechouran, op.cit., p.40.

490 *Travancore Education Code, 1909*, Travancore Education Department, Government of Travancore, 1909.

491 TAR, for the year 1921-22, op.cit., p.81.

492 Ibid., p.81.

this, one of the sanitary officers was deputed for a short period to provide public lectures independently, of the public Lecture Committee. Sanitary Officers, besides, directed to speak to groups of men in different villages and secure their sympathy and co-operation. Hence, the village panchayat's regulation act was passed to keep the villages vigilant on public health and sanitation. Special sanitary arrangements were made in connection with twenty six fairs and festivals. Proper inspection of all sanitation works were conducted regularly.[493]

In the year 1923-24, appearance of certain epidemics was there in Travancore. For instance, cholera prevailed in the towns of Nagercoil and Shencottai during the year and there were 147 attacks and 82 deaths in the year against one attack and one death in the previous year.[494] It is to be noted that these areas were under the surveillance of the LMS hospitals during that period. Yet, they could not arrest the spread of cholera with their sophisticated, as it was claimed, medical equipments. Smallpox also prevailed in all the municipal towns except Thiruvalla, Kottayam, Neyyattinkara, Kuzhithura, Padmanabhapuram, and Colechal. The mortality was high in the affected areas despite the strengthening of vaccination by the government under the supervision of the vaccination department.

Smallpox appeared in a severe form in Alleppey causing 236 attacks and 64 deaths.[495] A sum of Rs.13,317 was spent by the Nagercoil Municipal Council, during the year, for improving lanes, for converting streets in to cartable roads, for constructing bathing ghats and on other useful works.

In the year 1924-25, Mr. M J Chandy was the sanitary inspector in charge. Prevalence of certain epidemics continued in this year also. More than 227 deaths were reported during this period due to smallpox. Cholera also took about 748 lives. Hence, in order to enhance the sanitary programs new conservancy stations were opened. And special sanitary arrangements were made in connection with 25 fairs and

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[493] As a part of the general inspection by the Sanitary Commissioner, the A.G. Sanitary Commissioner was in camp for seventy five days and inspected nineteen conservancy and eight municipal towns. He also inspected the work of vaccinators in 29 ranges and personally verified 95 cases vaccinated by them. Ibid., p.82.

[494] TAR, for the year 1923-24,op.cit.,p.72.

[495] Ibid., p.72.

festivals.[496] The sanitary commissioner had inspected 99 out of 102 vaccination ranges to ensure the efficacy of vaccination through proper supervision.

In this year, the Municipal Council, Nagercoil, deputed four women to undergo training in the Women and Children hospital, Trivandrum, mainly in connection with maternity and child welfare; while the Municipal Council, Alleppey, sanctioned a grant of Rs. 500 to a private association working in this direction. The Nagercoil council had also taken up the investigation of the scheme for the supply of good drinking water for the town. The Municipal Council, Quilon maintained three night schools and the councils of Aluva and Attingal one middle school each for girls. A sum of Rs. 15,532 was spent by the Municipal Council, Nagercoil, for improving lanes and streets and for other useful public works.[497]

Thus Travancore had made considerable achievements in the field of public health and sanitation until the arrival of the Rockefeller Foundation. Nevertheless, such measures were not sufficient since there were frequent appearance of epidemics like cholera, malaria, smallpox and other infectious diseases. The government, it seems, had understood the limitations in public health, and they were not willing to spend any more on it other than inviting other agencies to do the same in the state. The arrival of the Rockefeller was mainly, from the governments' point of view to provide sophisticated method of public health and sanitation in the state.

Conclusion

The missionaries contributed immensely for the growth of western medical care in Travancore in the colonial period. Although the government institutions were more in number in providing European medical care to the public, the role taken by the medical missions of various missionary groups cannot be nullified. They played a crucial role in popularizing western medicine based on 'scientific beliefs' as they claimed always. However, the mostly circulated view about medical missionary in the late 19th century was that it was not done for purely medical purposes, but used it as

[496] TAR, for the year1924-25,op.cit.,p.67.

[497] Ibid., p.68.

means to spread Christianity. Work was carried out where most converts could be won, not necessarily where the need was the greatest.[498]

In the area of medicine, the state and the missionaries maintained a very favorable relationship.[499] Thus, the missionary groups particularly LMS concentrated their medical activities in south Travancore by placing Neyyoor as their centre. Moreover, these areas were not much attended by the government medical activities. There might be several reasons for this. The state never promoted a transparent medical care system for the lower class people. Caste always stood as a hindrance to the smooth functioning of medical institutions.

The LMS and the Salvation Army had sent well qualified doctors to India to render their valuable service to the people. They not only started medical schools but also provided employment opportunities to those who successfully completed medical training from their medical schools, by appointing them in the services of various hospitals and dispensaries established by them in the state. This mission groups could successfully establish certain well-equipped dispensaries and hospitals particularly in epidemic-stricken areas in Travancore. In fact such initiatives from these groups were highly appreciated since the state was reluctant to provide medical care to the people of these areas. However, in spite of their quality and usefulness, the scale of the missionary institutions was far smaller than that of the government institutions. For instance, in the year 1900-01, the government institutions treated more than six times as many patients as did the LMS institutions in the state. But in the area of education the mission institutions were at the top.[500]

The state did not consider much of the religious influences of the mission institutions in medicine as seriously as in education.[501] Unlike in education, there were fewer criticisms from the higher castes against the medical mission. The missionaries did not much succeed in converting higher castes through medical mission. It might be mainly because the higher caste people were still reluctant to

[498] David Hardiman,op.cit.,p.18.

[499] Koji Kawashima, op.cit., p.146.

[500] Koji Kawashima, op.cit., p.147.

[501] Ibid., p.147.

accept the western medical care due to many reasons. It was the reception of the system by the lower caste people that made western medicine much more popular than before. Apparently this helped the missionaries to build their access among the lower sections of the population of Travancore. If there had not been any acceptance of western medicine by the lower castes of Travancore, the process of institutionalization would not have been possible even today.

Education and the emancipation of the lower class people helped a lot in popularizing western medicine in the state. The higher castes people's aversion to preventive medicine such as small pox vaccination and other activities of the medical department of the government were a contributing factor for it. Nevertheless, for the missionaries, the treatment of the lower castes was to mould people in a receptive frame of mind to the message of gospel. Thus the mission dispensaries and hospitals were designed and acted as 'magnets' drawing patients from near and far to the missionaries. But how far they succeeded in such attempt in Travancore needs further investigation.

Chapter 5

Western medicine and Medical institutions in colonial Malabar: a comparison with colonial Travancore.

The arrival of Western medicine in Malabar was a bewildering process particularly because of the nature of the political and socio economic situation in the colonial period. Although the British tried to introduce it way back in 1802 itself, in the form of smallpox vaccination, it could not succeed much due to different reasons.

It is apparent that the impact of the advent of western medicine into a place where there was an entirely different form of health care system, cannot be evaluated merely on the basis of the number of medical institutions established in various years. Nevertheless, this number can surely be accounted as being one of the determining factors of the process of the institutionalization of western medicine in colonial Malabar. As there were more hospitals and dispensaries, more number of patients visited those institutions. There are also things to take into consideration like the number of cases treated every year, types of diseases reported, methods of diagnosis and treatments, drugs and surgical operations used and performed. They altogether would be able to provide necessary information with regard to the health care of the natives of Malabar to an extent. The government policy on the healthcare system can also be analyzed on the basis of the number of institutions opened for treatment in a particular period

And therefore, this chapter would deal with four important themes which, I believe, were crucial for the dissemination of western medicine in Malabar viz. ‘the smallpox encounter’ ‘medical institutions’, ‘women’s health care’ and the ‘public health’. A comparison of these themes with colonial Travancore would help us to understand how the process of institutionalization of western medicine was different and bewildering in Malabar compared to colonial and post-colonial Travancore.

Malabar, one of the two districts of the Madras presidency situated on the western coast of India, was a fertile land for the British for their colonial motivations for centuries.[502] Unlike the princely states of Travancore and Cochin on the southern side, Malabar had a different experience of colonial penetration particularly under the British paramountcy for many years. With regard to the dissemination of Western medicine, vaccination against smallpox was the first measure introduced by the British in the form of preventive medicine in Malabar. Absence of any other agencies, as it was there in Travancore, other than the British to patronize western medicine in Malabar contributed to a totally different experience to the natives of Malabar. And therefore, the present chapter would be an attempt in analyzing whether such a different experience of western medicine slackened the dissemination of it; and if that was the case, how far smallpox vaccination was successful as preventive medicine in Malabar?

Although there are a lot of studies about the arrival of western medicine in India, studies particularly pertaining to the advent of Western medicine in Malabar is more or less absent. Malabar has not only been neglected by historians of medicine but also by the scholars of other disciplines due to a variety of reasons. Scant references are available to this date and that too scattered in a few scholarly articles

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[502] Under the British paramountcy, Malabar district comprised the territory on the Malabar Coast between Cochin and Canara, the Arabian Sea and the Western Ghats. Following the Third Anglo-Mysore War between Tipu Sultan of Mysore and the Treaty of Sreerangapatanam in 1792, Malabar district was ceded to the Bombay Presidency under whose tutelage it remained until 1800 when it was transferred to Madras Presidency. Malabar, the northernmost province of the present Kerala State, since then was under the direct control of the British regime. It was a distinctly ruled district under the Madras Presidency.

Malabar made-up of the nine Taluks of Chirakkal, Kottayam (Malabar-Kottayam), Kurumbranad, Calicut (Kozhikkodu), Wynaad, Eranad, Vallavanaadu, Ponnani, and Palghat. Cochin taluk, which was also a part of the Malabar District, includes the town of British Cochin and Seventeen *pattams* or small isolated estates situated within the boundaries of Cochin State. The Lakshadweep islands were also administrated by the Collector of Malabar. Excluding these islands the total areas of Malabar District was 5,787.45 square miles. Its capital was the Cantonment and Municipality of Calicut. The etymology of the name Malabar has given rise to much controversy. Al- Biruni (970-1039 AD) appears to have been the first to call the country Malabar; but long before his time the Egyptian merchant Cosmas Indicopleaustes, mentions a town 'Male' on the West Coast of India, as a great emporium of the pepper trade. Malabar has therefore been derived from 'Male', but most probably it is a compound of the Dravidian *Mala*, a hill, and either the Arabic word *baar* a continent, or the Persian *bar* a country. Bonaventure Swai, **'**Notes on the Colonial State with Reference to Malabar in the 18th and 19th Centuries', *Social Scientist*,Vol.6,No.12,July 1978,p.50; C A. Innes, *Malabar (Gazetteer)*, Kerala Gazetteers Department, Trivandrum, 1997, pp.2-3.

regarding smallpox vaccination as a preventive medicine in Malabar during the colonial period.[503]

The Smallpox Encounter and the Indigenous Response

Repeated occurrences of epidemics of various types posed a major threat for the sustenance of the British regime in the Madras presidency. Malabar was one of the areas in which the British Government had to suffer a lot to encounter these epidemics. Smallpox was prevalent in Malabar in a severe form than anywhere else in the Madras presidency. Since 1800 the disease broke out periodically, and was stamped out only by congregating vaccinators in the infected areas.[504]

Although we have information on the introduction of cowpox vaccination to prevent the smallpox epidemic, there is not much information on the practice of variolation using 'variolous matter' against smallpox in Malabar during that period. According to the available sources, cowpox vaccination was introduced in the year 1800 itself. However, it was not a successful venture in Malabar due to a variety of reasons.

As early as 1801, rewards were offered to natives who successfully practiced inoculation for smallpox, and in 1803 the sub-collectors were directed to exert themselves 'personally to the utmost in persuading the principal inhabitants of the country, who have not had smallpox' to submit to the operation.[505] Nevertheless, it did not get any native acceptance until the 1850s. In Travancore, it had been operated under the patronage of the princely rulers since 1811 itself.

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503 For instance, Niels Brimnes, while discussing about the process of smallpox vaccination and the popular resistance towards it in South India, refers to Malabar as one of the earliest places where the British had tried to disseminate cowpox vaccination to prevent smallpox as early as 1802. However, it is a study on the smallpox preventions in the Madras Presidency where the process of variolation was totally an unknown process. For more details see, Neils Brimnes, "Variolation, Vaccination", op.cit.,p.2

504 Ibid., p.2

505 Logan says that notwithstanding the measures then taken and the organization subsequently of a special establishment to deal with the disease, it almost annually claims its thousands of victims, and alternating with cholera; the two diseases carry off a large proportion of those who live insanitary lives. William Logan, *Malabar Manual*, Vol.1, p.216.

In 1852, the Medical Board of the Madras Presidency had paid attention to the functioning of the corps of vaccinators in the several districts including Malabar, where the prevalence of smallpox was more severe than anywhere else in the presidency. As a part of it, in Malabar, frequent communication had been made with the superintending surgeons with the view of keeping up and increasing the attention and zeal of the local superintends, and encouraging each vaccinator to a faithful and zealous discharge of duty.[506] Those who failed to accomplish their duty were being punished by imposing fines and dismissal from their duties etc.[507]

In this particular year smallpox had afflicted many in Malabar. It existed in a severe form in the provinces of Calicut and other northern parts of Malabar. This virulent occurrence numbered almost 7,166 persons in that particular year, and among them, 3,502 deaths were reported. That means 49 percent of the mortality had been reported in that particular year. Hence, the Madras government had to strengthen the vaccination program by appointing more vaccinators in Malabar. Hence the Body of vaccinators and subordinates, and medical officers generally in these provinces were vigorously employed in diffusing vaccination. The government further had to take proper measures to keep the vaccine lymph safely without losing its efficacy due to the climatic condition of the region.

In 1852 total 15,596 persons were vaccinated in Calicut of which 12,301 were successful and 3,295 were reported to have been failed. Two second class vaccinators were dismissed from their position for sending false returns to the authority. In Kannur, vaccination was performed in a similar basis. Here, children once vaccinated were subjected to repeated inspection to ensure the quality of the vaccine. Vaccinators assigned for a particular time were changed at least once in six months from one place to another. In Thalasserry a total of 4,741 persons were vaccinated and of them only 319 proved unsuccessful. Thus the total number of persons vaccinated in the Malabar district rose to 13,961 with 722 failures in that particular year.

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506 *Report on the Progress of Vaccination for the year 1852*, Madras Presidency, Government of Madras, 1853, p.1.

507 Ibid., p.2.

The number of vaccinations performed by the eight vaccinators in each quarter of the last year, with the proportion of failures to successful cases, and the average daily number of vaccinations performed by each subordinate for the respective periods is given in a table shown below.

Period of vaccination	Successful cases	Failures	Total
1st Quarter	2,753	81	2,834
2nd Quarter	3,530	133	3,663
3rd Quarter	3,799	253	4,052
4th quarter	3,157	255	3,412

Table 27: ***Performance of vaccination in Malabar during the year 1851***[508]

In the year 1853 smallpox prevailed in a virulent form in Malabar district taking many lives consequently. Continuous outbreak of this epidemic, therefore, was a major threat to the Europeans living in Malabar. And therefore, the British authority was much vigilant in preventing the spread of smallpox particularly among the European residents in Malabar. Total 16,662 persons were vaccinated in Calicut in that particular year. In Kannur (Cannanore) it was 955 in number. Cannanore was a cantonment station and therefore, a majority of persons vaccinated there were either military men or other officials of the presidency. More than 1,000 vaccine operations were performed in Thalasserry taluk. However, the actual number of successful vaccination cannot be shown as the local superintends did not hand over exact statistics of smallpox vaccination to the authorities.[509]

[508] Ibid., p.15.

[509] *Report on Vaccination throughout the Presidency and Provinces of Madras for the year 1853,* Government of Madras, 1853, pp.1- 4.

Efficacy of Vaccines

With the exception of a few places in the more northern part of the northern areas, and in Malabar and Canara, the vaccine crusts would appear to be pure and effective and a genuine product of well-marked vesicles with the usual symptoms. As reported in the Vaccination Reports, "Large supplies of lymph has been transmitted from the Presidency to those stations where renewal of the virus appeared to be required—with, in some instances but indifferent results; supplies also in tubing, hermetically sealed have been sent from the depot at Madras with similar results; fortunately, however, supplies obtained from less distant sources have been somewhat more successful, but at the place mentioned ,particularly in Malabar along with some other places in the northern areas, there is a strong tendency to the virus degenerating, and it is greatly to be considered, that lymph direct from England should be introduced in to these localities; the last received on ivory points, between glasses and crusts, entirely failed. Charges in glass- quill tubing hermetically sealed, offer the best medium, and would in all probability be successful."[510]

There were also attempts from the medical department to obtain cowpox directly from the cows, but this had failed in most of the northern areas. The main aim behind such an attempt was to ensure the quality and efficacy of the vaccine, which have in several cases proved degenerating while transportation from long distances. The medical board also helped by providing glass-tubes to the local superintends to carry vaccines safely in their vicinity. It was believed that the vaccine lymph thus secured in glass-tubes hermetically sealed, would retain its efficacy longer, and in a more perfect degree than in any other way.

The vaccine lymph used throughout Malabar was reported to be genuine and efficient by the local superintend. But there was little issue regarding the efficacy of vaccine lymph in Calicut. Comparatively, much quantity of vaccine had to be used in Calicut for vaccination mainly because of the density of population in that station. It might have created certain problems during the procuring and storing of vaccine locally in that period. Hence, fresh supplies of vaccines were forwarded to Calicut mainly from the neighboring districts and also from the Presidency. Several supplies

[510] Ibid.p.,4.

of vaccine lymph received from the Royal Jennerian Institute in London lost its efficacy. However the district authorities managed to procure certain numbers of vaccines from the other sources.[511]

There were fewer failures of vaccination among the infants during that particular period. At the same time it was a little high among adults because of many reasons. There were only 5 percent failures of vaccination among the infants in Malabar, while it was 16 percent among the adults. It proves that the period of infancy was more secure and favorable for vaccination. And this factor encouraged the community generally to have their children vaccinated within the first year after the baby was born. This was, according to the assistant surgeon in charge of vaccination, helping the child with another advantage as the child was having less chance of the risk of an attack of smallpox. However, later statistical returns showed that vaccination among infants was not successful in Malabar.

It was necessary for the British to ensure the efficacy of vaccines mainly to ensure that all operations were successful in Malabar. It was mainly due to the apprehension that, unless and until smallpox was prevented, it would not be possible for the British to sustain their regime in Malabar.

Native Apathy and Resistance to vaccination

There was however, widespread resistance from the natives against the use of cowpox vaccination in Malabar. This apathy was a two folded one, the first was against the process of arm-to-arm vaccination which was objected mainly because of the notion of pollution and the second one was against the use of cowpox vaccine against indigenous inoculation. According to the Annual Report on Vaccination, there was "throughout the greater part of the province, apathy and indifference on the part of the native community as to the benefits of the prophylactic form the chief obstacles to vaccination."[512] It further says that the prejudice against it was fast disappearing, and direct opposition against it was exhibited to a very limited extent; this great indifference and unaccountable apathy of the people however operated as

[511] Ibid., p.5.

[512] Ibid., p.4.

effectually and as perniciously, and required to be met with means as equally powerful and counteracting, though of a different nature from those that would be called forth against direct opposition to vaccination.[513]

Hence the medical department of the presidency insisted that utmost zeal and vigilance on the part of all connected with the supervision of vaccination must be continued, not only to disarm objection and prejudice, but to make its value known amongst the people, so that they shall be made not merely willing to receive this great protective good for themselves, but also to be interested in its wide diffusion over the entire country.

According to the report of the Circuit Surgeon appointed in 1857 in Malabar district, the following were the main obstacles to vaccination in the district.[514]

1. The indifference to the benefits resulting from cowpox vaccination, with ignorance and superstitious horror.

   a. When a vaccinator is seen entering a village for vaccination, the children are warned by their parents (especially mothers) to get out of the way. Great objections exist to the vaccination of children in their infancy. Among the older subjects, obstacles exist to success in the way of exposure during the progress of the case to the exigencies of the weather, in the employment of their daily labors; and frequently the newly punctured parts are interfered with, by washing them immediately by salt and water, with a view of destroying the intended object, and the young lads especially those living on the coast, are not prevented by their parents from bathing in the sea, although advised against it.

   b. Caste prejudices among the higher classes to having any of their people operated upon with the lymph taken from a lower caste.

   c. Ceremonious proceedings are first entered into by the higher castes before operation and confined to certain days.

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513 Ibid.,p.5.

514 *Report on Vaccination throughout the Presidency of Madras*, 1856, Government of Madras, Madras, 1857, p.16.

s 2. The want of assistance from the civil authorities:-

a. Non-attendance of a peon to assist the vaccinators to collect subjects.

b. Government servants employed in the Talook (taluk) appear to be averse to vaccination.

c. Several Vaccinators have complained of harsh treatment received from the people in the execution of their duty, and no redress obtained from the heads of the Taluks.

3. Want of subsistence for the conveying of fresh subjects from one village to another.

4. The vaccinators have no check in the preparation of their monthly registers since the department has been placed under the civil surgeon.

5. Of the present class of vaccinators employed, one half is unfit for their work, and requires continual superintendence.

Another obstacle to the effectual working of vaccination was that there was no provision made for these servants (after long and faithful service) in old age, consequently that stimulus for exertion and carefulness in duty is found wanting; so long as they are left to themselves, the work is carried on in their own way, but when made accountable, they immediately show indifference to their situation.

It was reported by the Circuit superintend that *"during the last five months of time here, I have not seen a case come voluntarily to the Dispensary for the purpose of being vaccinated ,but those brought from the neighboring villages for inspection ,these being the lowest description of caste, and who come more to receive the usual supply of rice given on these occasions, than to obtain effective lymph. The people are very filthy in their habits."*[515]

The natives of Malabar thus, hesitated to get vaccinated due many reasons. Arm to arm vaccination was a symbol of pollution since the higher castes followed un-touchability in the society under a caste hierarchy. As Arnold opines "the persistence of the arm-to–arm method highlights one reason for vaccination's long-

[515] Ibid., p.16.

lasting unpopularity. Unlike variolation, vaccination transferred bodily fluids directly from one individual to another. For most Hindus, this was offensively polluting, especially since low castes or untouchable children were often the only vaccinifers available."[516]

Remedial Measures and Suggestions

Some remedial measures were adopted and some were suggested for the improvement of vaccination in Malabar district during that period. They included such as imposing penalties on parents, in case of children not being vaccinated in their first year itself. Without the aid of the civil authorities, vaccination would have existed in name only in Malabar. So the Thahasildar was to nominate a peon, who would attend upon the vaccinator affording him all the assistance needed as heretofore by the stringent orders of the Collector.[517]

In order to avoid any harsh treatment from the people towards vaccinators, the government of Madras further asserted that all natives should in future, and those who apply for government job, should produce a certificate of having been vaccinated and those in present employ unvaccinated to be vaccinated.

The government also ordered that reports made by vaccinators to heads of taluks, should be attended to, and if discredited the vaccinator be fined. Subsistence was to be paid to Tahasildars of taluks as occasion may require, on certificates countersigned by *Addaghemi*s or other officials in villages. Monthly registers was to be countersigned by the Tahasildar as before, and every vaccinators was placed under the Thahasildar, him being the Head Police Officer of a Taluk. The only way to the expertness of vaccinators was ensued was by enlisting in time a number of volunteers, and preparing them for the work required and holding out some remuneration in their old age in the way of pension.[518] However any remedial measure taken had to be with the prior approval of the Collector of the District.

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[516] David Arnold, "Colonizing the Body", op.cit.,p.141.

[517] Ibid., pp.14-15

[518] Ibid., p.15.

In that state of the native mind, government were of the opinion, that the influence of the revenue officers offered the most effectual means of carrying on the work of vaccination; and the Board strongly recommended that the circuit superintendent receive the fullest support of collectors and other civil officers; such was ordered by the government, but the Board regretted to observe that it had been but partially acceded to. This necessary support and influence were to be secured for the cause of vaccination, otherwise the recent appointments would have been of comparatively little benefit or utility; if well supported and countenanced as they ought to be, the circuit vaccinators would give the requisite supervision over the work which should not be secured by the collector, and of a more valuable kind, in as much as the superintendence of the one is professional.[519]

The extracts from reports from the local superintendents of vaccination clearly proved that such supervision was requisite to secure the due performance of work on the part of the native vaccinators, and the Board recommended that the scheme proposed in their letter be fully carried out with as little delay as possible.[520]

The decrease in the number of vaccinations performed was ascribed by the several local superintends to various causes such as, apathy and prejudice on the part of the native population, a spirit of opposition on the part of native officials, the prevalence of epidemic disease in some places, changes of vaccinators and sickness amongst them, failure of lymph, and lastly a want of volunteers to replace causalities as promptly as could be wished.[521]

The order of government sanctioning the entertainment of a certain number of paid volunteers appeared to have been misunderstood or overlooked by many of the collectors, by which the cause of vaccination suffered very considerably. The want of cordiality on the part of native officials has been remarked upon on already, as one of the chief obstructions to the spread of vaccination.

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[519] Ibid., p.4

[520] Annual Report on Vaccination in the Madras Presidency for various years, Government of Madras.

[521] David Arnold, "Colonizing the Body"op.cit.,4-5

Hence, the government made it clear that with regard to the apathy and aversion had been so generally and extensively evinced on the part of the native community to vaccination, the Board could not but help contrasting the readiness with which multitudes now crowded the dispensaries for relief, and underwent long relief, and long courses of treatment and even severe surgical operation.

Very few presented themselves or their children at any one of the dispensaries of vaccination even though rice had been provided for those who underwent the operation. It is well known that the natives of India think little of anything that does not confer upon themselves some present, *personal and tangible good*. Hence their indifference to vaccination; its beneficial influence is contingent, it may be remote, while a little pain be it observed is occasioned in the meantime or supposed to be so; unquestionably their religious prejudices were comingled with this indifference.[522]

When a vaccinator of an inferior caste was appointed for vaccination in the moffussils, he had to face many obstacles from the natives. For instance, as the circuit superintendent Dr. Callaghan reports, during one of his circuits in the district, "I observed when in company with the vaccinator, a native of supposed higher caste approaching us on the road gave the usual alarm "ooh", the vaccinator (a tier) regarded the cry of alert, left men and went off the road some 20 or 30 yards. Moreover, in another occasion, some of the vaccinators were not even allowed to enter the vicinity of a Brahmin village."[523]

In order to overcome such barriers the circuit superintendent himself suggested that "the Circuit superintendent would himself come forward directly to lead the other eighteen subordinate vaccinators and two volunteers…and proceed directly to the taluks, distributing work for them throughout two Taluks at each; and that at the centre to lead himself, thus going to the Taluks, in one month and complete the sixteen in eight months during the remaining four months of the monsoons, the vaccinators may be told to off to their several taluks to keep up vaccination there during that period."[524] Although such instructions were given to

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[522] Ibid., p.5.

[523] *Report on the Annual Returns on Vaccination throughout the Presidency, Madras, 1855*, Government of Madras,p.3.

[524] David Arnold "Colonizing the Body",op.cit., p.6

have this arrangement, unfortunately the circuit superintendent of vaccination was withdrawn for the purpose of military employment.

According to the circuit superintendent the work of the vaccinators in this district was attended with much dissatisfaction. According to him the dreaded *Moplah* (Malabar Muslims) fanaticism and the Hindus' dark religious superstitions were the main causes of decrease in vaccination number in Malabar in 1857.[525]There were many problems while itinerating to vaccinate the subjects Malabar. While the itinerant vaccinators were on duty, they often came back with complaints. Usually, the following complaints were raised by the itinerant vaccinators.

1. Situation where the father of the family or the family head was absent.
2. Daughters of a family who had attained puberty were not allowed to get vaccinated.
3. Difficulty in bearing child's sufferings after the vaccine operation.
4. Doubtful about vaccination as they thought that even after vaccination they had to go through the disease at least mildly.
5. Saying that the particular day was unfavorable or inappropriate (might be due to some religious superstitions).
6. They must, according to caste customs use daily ablution, and consequently it is objectionable.
7. Finally, many were against vaccination without having sufficient reason.

And, moreover, if pressed by with knife, hatchet or the sick is threatened, accompanied with abuse. Amongst these obstacles the fourth notion was highly prevalent in Malabar. Many told the circuit superintendent that they had had smallpox a second or the third time.[526]

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[525] Ibid., p.6.

[526] *Report on the Annual Returns on Vaccination throughout the Presidency, Madras, 1856*, Government of Madras,p.11

There is no doubt about the fact that vaccinations were by no means, popular among the natives of Malabar. Caste prejudice or superstitious-reverence for the presiding deity of smallpox, ignorance about the benefits accruing from the operation, the carelessness, apathy, and want of intelligence amongst the class of persons hitherto necessarily employed as vaccinators, all combined to retard the diffusion of vaccination in Malabar.[527]

Extending cowpox vaccination

It was decided to frequently publish notifications in the vernacular language in Malabar under the initiative of the authority of the Presidency for the propaganda of vaccination. It mainly aimed at conveying the efficacy and value of cowpox vaccination in securing mankind from one of the most fatal and loathsome scourges, smallpox. Printed materials and pamphlets in vernacular languages were distributed in different areas of Malabar.

Local superintends of various provinces in Malabar reported effectively on the vaccination. For instance, as reported the then superintend of vaccination, Asst. Surgeon B.S.Chimmo, 13,961 persons were vaccinated of which 722 were unsuccessful. Proper inspections were conducted among children to ensure the success and failure of vaccination. Vaccine lymph was also subjected to inspection.

It is interesting to note that rice was given free of cost to the natives who were brought by the vaccinators to the nearest dispensaries for vaccination. It was hoped that this venture would persuade the parents of the natives to bring their children also to dispensaries. The medical board had a hope of getting access to such children for vaccination. But unfortunately, it was a failed attempt as nobody brought their children to the vaccination places.

Among the jail inmates also, vaccine operation was performed. "In Kannur (Cannanore) the numbers of vaccinated persons were slightly low. Total 4,144 persons were vaccinated. The ratio of the failure to successful cases has been 1 in 12; the average daily number of vaccination performed by all the vaccinators for whole

[527] Ibid., p.12.

year was 10."[528] In Calicut, there had been an efficient performance of the vaccine operation for the last five years. The following table indicates the rate of vaccine operations performed for the five years since 1849.

Year	Total Vaccinated	Successful	Unsuccessful
1849	6,910	4,892	2,018
1850	12,255	8,737	3,518
1851	14,232	11,237	2,995
1852	15,829	12,807	3,522
1853	18,168	13,775	4,393
Total	67,394	51,448	16,446

Table 28: ***Vaccination in Calicut, 1849-53***[529]

The vaccinators on duty, according to the report, showed a better performance in Calicut and surrounding areas during the five years since 1849. "The vaccinators have performed a fair amount of duty; the highest number vaccinated by one individual, a second class vaccinator was Mr. Subramnay Pillai, numbering 1,858. Each vaccinator of various categories has performed an average of 1,397 vaccine operations per year. This increase was due to many reasons. Strict supervision and guidelines from the Medical Board were major among them. However, certain notions always became an obstacle to the extent of vaccination to the whole sections of population in Malabar." According to the Superintend of vaccination for Calicut, they are the following.

1. The intense caste prejudice

2. The extent of square miles to population occasioning excessive labor.

[528] Ibid., p.23.

[529] Report on the Annual Returns on Vaccination throughout the Presidency, Madras, 1856, Government of Madras, 1849-53.

3. Difficulty of obtaining vaccinators, for the remuneration now given, good caste men with sufficient intelligence necessary to grapple with the first obstruction.

For a variety of reasons Malabar, in the matter of vaccination, was still the most backward district in the presidency until 1941. The vaccinators, as a class, were most indifferent, and their work was harder than in the east coast. There were no villages where the children could be readily collected, and a dozen operations performed in as many minutes. Houses were scattered, and to make up the prescribed tale of work, the vaccinator had often to tramp over large areas.[530]

Vaccination was made compulsory in all the municipalities and in the district excluding Wynad taluk and Attapadi village in 1914 and in 1925. Later it was extended to a few more selected villages in Wynad taluk. The municipalities had their own vaccinators who worked either under the immediate supervision of their health officers or the civil surgeons. The rural parts of the district were divided in to fifteen ranges each under the supervision of a health inspector, whom themselves were controlled by the district health officer. There were 35 vaccinators in the district, including two reserve men appointed by the district board. Lymph obtained from the King Institute in Madras was used for vaccination. The following table shows a detailed statistics of persons vaccinated in Malabar in the year 1853.

[530] C A. Innes, op.cit., p.293.

Stations	Caste and Sex of persons vaccinated						Total		Grand Total
	Hindus		Christians		Muslims				
	M	F	M	F	M	F	M	F	
Mangalore	4,653	3,534	749	636	940	619	6,342	4,789	11,131
Cannanore	2,034	776	9	14	656	188	2,699	978	3,677
Calicut	9,016	4,260	153	56	3,459	686	13,428	5,002	18,430
Thalasserry	2,747	1,299	32	8	393	169	3,172	1,476	4,648

Table 29: ***Caste- wise vaccination in Malabar and Mangalore, 1853*** [531]

In Cannanore, 3,399 successful cases were reported, while the number of unsuccessful cases was 278. In Calicut, total 13,959 successful cases and 4,471 unsuccessful cases were also reported. The total number of successful vaccination in Thalasserry was 4,423 and unsuccessful cases were 225 only. Vaccination was not compulsory both in the rural and town areas of the Malabar.

The year 1855 marked a decrease in the overall performance of the vaccination throughout the Madras Presidency. In Malabar, according to the local superintend of Calicut station, it was mainly due to the increased apathy and indifference of the native community.[532] In Calicut, there was a decrease of 2,835 vaccinated persons than form the previous year.[533] But, according to the report on the returns of vaccination, much of the task was accomplished by constant and vigilant superintendence on the part of the civil authorities in several district centers. It was

[531] *Report on the Annual Returns on Vaccination throughout the Presidency, Madras, 1853*, Government of Madras, 1854.

[532] *Report on the Annual Returns on Vaccination throughout the Presidency, Madras, 1855*, Government of Madras, p.11.

[533] Ibid., p.11.

reported that when the native subordinate officers observed that the collector and his assistants interested themselves in the cause of vaccination that not only stimulated the vaccinators to a discharge of duty, but encouraged the people to come forward for vaccination.[534] It was also reported from various dispensaries of Malabar that the scheme of supplying rice for free of cost to the poor to attract towards vaccination was a failure.

As per the census of 1850-51, the total population of Calicut and other centers in Malabar was 1,514,909, and an average annual birth was 3 percent of the total population; that meant an addition of 45,447 births were added in that particular year. However, only 144 infants were vaccinated in that particular year which means that only 0.3 percent of the annual births was covered under vaccination. This further proves that the inadequacy and lack of government initiative in disseminating vaccination to the natives of Malabar.

In order to strengthen vaccination, a special post of circuit superintend was created by the Madras government in 1856. It was mainly because it was apparent that the vaccinators performed their work in a lax and negligent manner, and in no way calculated to ensure the benefits of the prophylactic to the native community.[535] Five of twelve vaccinators failed to send in glasses for inspection as ordered. They were reported and fined.[536]

Mr. Callaghan was appointed as the circuit superintend of vaccination for Malabar district in 1856.[537] On his arrival, he was instructed to make him thoroughly acquainted with each vaccinator, the manner in which each performed his work, and the existing obstacles to the spread of vaccination.

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534 Ibid., p.12.

535 Ibid.,p.14

536 Ibid.,p.14

537 H. Callaghan was appointed as the Circuit Superintend of vaccination on 28th June 1856 and he assumed charge on 20th August 1856. Hence, the vaccine establishment was transferred from the responsibility of the Collector to the Civil Surgeon of Malabar. These reforms were brought about, according to the annual report, so as to ensure the performance of the Vaccine Department according to the anticipations of the Presidency Government. Ibid., p.13-14.

He reported that "the Bodies of the vaccinators serving in this division are men of this coast, and the majority of them are of inferior caste. One half of these was unfit for their work, and requires close and constant supervision."[538] These meant that natives also were appointed as vaccinators in Malabar to extend vaccination further. Whether they were qualified or not was not a matter for the Medical Board to consider. Hence, this created lot of confusion while vaccine operations.

The circuit surgeon always complained about the lack of cordiality among the vaccinators of the subordinate classes which was adversely affecting vaccination in Malabar. Hence the report says that "*indeed when the prejudices of the Hindoo Community and their apathy are considered ,the prejudicial and baneful influence such conduct on the part of the native authorities must exert, may easily may be estimated; and under such circumstances, vaccination should have made progress has done; for unquestionably in many of the Collectroates ,epidemic visitation of the smallpox have been unknown for years past, thus proving that the community generally in these districts including Malabar, under the presidency are under the protective influence of the prophylactic."*[539]

In the year 1857, five assistant apothecaries, appointed as circuit superintendents, had been withdrawn for military purposes. According to the report, native apathy against vaccine inoculation in Malabar was strong as elsewhere in the Madras presidency. The medical board thus had a view that only time and proper education of the natives would remove these obstacles.

As part of the measures taken to resolve the apprehension among the natives towards vaccination, short treatises were distributed. Many of the local and itinerating superintends strongly urged that vaccination should be made compulsory throughout the district, so that the people in moffussil areas particularly, could have access to vaccination. Unfortunately, it was not made compulsory until 1914 anywhere in the Madras Presidency.

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[538] Ibid., p.12.

[539] Ibid., p.2.

In this year, the government had a plan to restore the European supervision of vaccination to make it more effective and well reachable to all in the Presidency.[540] Besides these attempts, paid volunteers also were provided to Malabar to serve the vaccine inoculation. It was mainly aimed at the full-fledged functioning of the medical department. All these innovations were done mainly because of the continuing prevalence of smallpox epidemic in the western Coast of the presidency, particularly Malabar.[541]

The medical board always had the opinion that vaccination was decidedly most successful in infancy. In Malabar, failures of vaccination per thousand infants were 56, while among the adults it was 195. According to the Medical Department, "these facts should encourage the community generally to have their children vaccinated within the first year, and that early vaccination removes or diminishes the risk of an attack of smallpox."[542] Contrary to this, there were also more failures in the vaccination of infants in Malabar.The following table shows the statement of the number of cases of smallpox and mortality therein Calicut, Malabar district between 1st and 2nd half of 1857.

Year	**Smallpox**		
	Number	Died	Recovered
1st half of 1857	8,543	2,088	6,455
2nd half of 1857	3,650	1,098	2,522
Total	12,193	3,186	8,977

Table 30: ***Vaccination in Calicut, 1857*** [543]

[540] *Returns on Vaccination throughout the Presidency of Madras for the Year 1857*, Madras, pp.2-3.

[541] Smallpox had been more prevalent in certain localities of the Madras Presidency than during the previous year, particularly on the western Coast; but the greater part of the Presidency has been free from it in an epidemic form. Ibid., p.4.

[542] *Returns on Vaccination throughout the Presidency of Madras for the Year 1857*, Madras, p.4

[543] *Extracts from the Annual Reports of Vaccination by local Superintendent of Vaccination for the year 1857*, Malabar, Madras Presidency, Government of Madras, Madras, Ibid., p.6.

This means that in the year 1857, in total, two thirds of the number afflicted with smallpox had been recovered. According to the reports by the circuit superintendent such a result in the mortality from smallpox was not surprising given the apathy of the people of Malabar against vaccination as well as from the deficient management or want of cooperation with the establishment on the part of the controlling authorities.[544] According to the circuit surgeon, in Calicut the smallpox virus stood active during the monsoon season.

Bazaar		**Parcherry**		**Cantonment**		**Village**		**Successful**	**Failure**	**Total**
M	F	M	F	M	F	M	F			
321	199	68	62	286	88	588	364	1,383	593	1,976

Table 31***: General return of Vaccination by Medical Subordinates in Malabar, Madras Presidency, 1857, Malabar and Canara, 1857.***[545]

Europeans		**Hindus**		**Muslims**		**Successful**	**Unsuccessful**
M	F	M	F	M	F		
12	5	129	64	72	18	300	243

Table 32: ***General Returns of Vaccination by Volunteers, (Community based) in Malabar and Canara, 1857.***[546]

Although the general return of vaccination was comparatively high in the village areas, there was never a sufficient number achieved as the majority of the population in Malabar lived in the moffussils. And hence, it is apparent that benefits of smallpox vaccination were not accessible to the people of the village in Malabar. This further posed a major threat to the attempts of the British to prevent the epidemic with vaccination. This constituted one of the draw backs of the epidemics disease

[544] Ibid.,p.6

[545] Ibid.

[546] Ibid.

policies. Facts could be further appended with other details of vaccination during the same period in Malabar and Canara. The following statement shows the monthly vaccination returns of Malabar and Canara.

Months	Number vaccinated	Unsuccessful
January	2,819	502
February	2,780	575
March	2,805	467
April	2,893	608
May	2,974	514
June	2,738	519
July	2,675	462
August	2,770	700
September	2,708	474
October	2,739	509
November	2,836	650
December	2,693	435

Table 33: ***Monthly Vaccination Returns, Malabar & Canara, 1858***[547]

In this year there was an increase of 124 vaccinations in Cannanore, Malabar. However, there was a decrease of 163 persons in Thalasserry.[548] Any information regarding Calicut was unavailable for this particular year.

[547] *Report on Vaccination throughout the Presidency and Provinces of Madras for the Year 1858*, Government of Madras, Madras, p.12

[548] Ibid.,p.12

In Calicut the average number of vaccination performed by each vaccinator was 1,217 in 1858. While in Thalasserry it was 915, it was 763 in Cannanore, which means only a small proportion of the population had been given smallpox vaccination even after the 60 years of its introduction in to British colonies in South Asia.

It has been asserted from time to time, in the various reports on vaccination, that the class of persons hitherto necessarily employed as vaccinators, were rather a hindrance than an aid, to rendering its popularity with the people.[549] Apparently, the vaccinators were uneducated people, and many of them were idle, careless, or indicted to falsifying their returns when away from supervision. But in England, all public vaccinators were qualified medical men.

The performance of vaccination of the medical subordinates had decreased in 1858 Malabar. As the report says "vaccination has not been carried on so extensively by the medical subordinates during the past, as in some former years. The reason probably, being the numerous calls upon their time in the performance of their important duties, and as some of the collectroates and sub-collectorate has, in consequence of the war, been un-provided with the usual medical establishments."[550] E.S. Cleveland was the civil surgeon in charge for Malabar in 1858. According to him the decrease in the number of vaccination noticed in the first half yearly report was mainly because of the absence of the circuit superintendent of vaccination in Malabar.

According to Cleveland the circuit superintendent of vaccination nominated to Malabar district should be able to understand the prevalent vernacular/local language spoken by the population there in Malabar. He/she should not only be able to converse freely in Malayalam, but to read and write it as freely as possible. He should also have a peon allotted, exclusively attached to him on his itinerating duties. In order to strengthen infant vaccination, as Cleveland reported, *battas* and carriage hires were paid to mothers of the native communities to submit their children to vaccination.

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549 Ibid.,p.5

550 Ibid., pp.5-6.

Year	Bazaar		Percherry		Cantonment		Villages		Successful	Unsuccessful	Grand Total
	M	**F**	**M**	**F**	**M**	**F**	**M**	**F**			
1858	133	43	19	16	62	13	38	31	253	102	355
1859	19	12	30	24	45	15	19	17	131	50	181

Table 34: ***General Return of Vaccination by Medical Subordinates in Malabar & Canara, 1858-59***[551]

In the year 1858, 15,297 successful vaccinations were performed in Calicut. 4338 unsuccessful vaccinations were also performed, thus the total constituted 19,635. [552] In the year 1859, 14,713 successful vaccinations were performed while the number of unsuccessful cases was 4,713. That meant an increase of 375 unsuccessful vaccinations comparatively to the previous year.[553]

Yet another initiative from the British authorities in Malabar was the beginning of special hospitals for smallpox. It was mainly to encounter the prevalence of smallpox that such hospitals were started in Malabar. Thus in Malabar the first smallpox hospital was established in Calicut. Thus, there were two such hospitals on the western coast of the Madras Presidency, one at Calicut and the second one at Cochin. Such hospitals were mainly concentrated on the western coast mainly because of the prevalence of the epidemic in an endemic form. One of the main aims behind opening such special hospitals was to attract the more conservative people of the western coast, who believed in pollution and purity on the basis of caste hierarchy, towards western medicine. Those who hesitated to take vaccinations were mainly attracted to such hospitals for the treatment of smallpox, without understanding the fact that prevention was the only method to get away from smallpox.

[551] *Report on Vaccination throughout the Presidency and Provinces of Madras for the Year 1858*, 59, Government of Madras, Madras, 1859.

[552] Ibid.

[553] Ibid.

Medical officials usually complained regarding the difficulty of getting the mothers of children to accompany the vaccinators from village to village.[554] The only way of vaccinating on a large scale was to use the lymph perfectly fresh-vaccinating from arm to arm. Provisions were also made to provide remuneration to those parents who took their children to neighboring village for smallpox vaccination. [555]

As per this provision a vaccinator would be authorized to pay an amount as travelling *battas* for those who carry their child the neighboring village. This amount could be recovered by the vaccinators through submitting a counter signed by the superintendent in charge of that locality.[556] As per this, to a women for taking children to a neighboring village (the distance not being more than two miles from her residence), a gratuity of eight *annas*, and for a distance of four miles, ten *annas*, and an *anna* additional for every mile was given.

These factors prove that the natives were reluctant to submit to vaccination voluntarily. There was only an increase of 104 vaccinated persons in Malabar in the year 1862.[557] The superintendent was of the opinion that these people should themselves witness the beneficial effects of vaccination in hospitals, where both varieties of smallpox were under treatment, where they might see for themselves that the vaccinated always recovered, while the non-vaccinator frequently died.[558]

In order to avoid such reluctance, the following suggestions were made. It was suggested to all the persons holding or applying for an employment with the government, the advantages of vaccination whereby not only would many valuable lives and much consequent trouble and expense be saved to the state, but also many of the existing prejudices on the subject might in time be broken down by all classes of the people being thus reached.

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554 Report on Vaccination throughout the Presidency and Provinces of Madras for the year 1860, Government of Madras, Madras, 1861.

555 Ibid.

556 Ibid.

557 Extracts from the *Annual Reports of Vaccination by the local Superintendents of Vaccination for the Year 1863*, Government of Madras, Madras.

558 Ibid.

Dr. S. Pulney Andy, the superintendent of vaccination opines that, "the vaccinators, with one or two exceptions, evinced no interest in their work, although they appear to be attentive whilst engaged under my personal observation."[559] This apathy was chiefly due to the manner in which they were left alone to their own individual exertions, without in the least being aided by the local authorities, as well as to their persuasions being also met with abject indifference by the people.[560] The want of cooperation of the taluk and village authorities had been brought to the notice of the Collector, who had kindly issued orders to these officials, and notwithstanding which the same apathy still continued.[561]

These vaccinators, when pressed to adhere to their duties, showed an aversion to serve under supervision on a small payment. They said that the remuneration they got was very insufficient for their itinerating labor. The difficulties that the vaccinators had to content with were by no means small in the district, and they were obliged to spend one or two rupees monthly out of their small income in order to obtain subjects for vaccination.

There were some obstacles, according to Dr. Pulney Andy, against the successful propagation or extension of the prophylactic amongst the 'real' native of Malabar. Owing to the order of the then government demanding a certificate after having been vaccinated, or of having had smallpox, from the candidates for the Civil Service Examination, a few had come forward, more for the sake of a certificate. When they were questioned regarding the certificate, they replied that they were obliged to submit themselves to the operation, so as to be qualified in this respect for a government appointment not as a sanitary measure, or as a benefit to their future health.

There were many misunderstandings among the rural population regarding the intention of the government on vaccination and its propaganda. Some people considered it as a practice of oppression, or torture on them, and this was easily

[559] Ibid.

[560] Ibid.

[561] Ibid.

perceptible by the appellations in use among them when calling the vaccinator the "digger", or the cutter of arms.[562]

Thus as Arnold opines, in the early decades of the nineteenth century, vaccination stood in the forefront of British attempts to promote western medicine in India. By the second half of the century, however, despite considerable expansion of vaccination that was taking place, it was seen in more routine, or menial, terms. This view was supported by a strong conviction that the vaccinations were an inappropriate instrument for the more general dissemination of western medical and sanitary ideas.[563] This could be one of the several causes why the British paramountcy shifted their focus from smallpox prevention to curative medicine by opening various types of medical institutions in India by the early decades of the nineteenth century. Malabar under the Madras presidency was the big example in British India.

Medical Institutions in Malabar.

As seen in Travancore, there occurred a paradigmatic shift from preventive medicine to curative medicine of Western medicine in Malabar almost simultaneously. Thus the first dispensary dispensing Western medicine was opened at Calicut in the year 1845.In that particular year this dispensary had treated 9 in-patients and 187 out-patients. There were only three dispensaries in Malabar in the year 1853. In Travancore the first dispensary in the Palace was started even as early as 1812. The enlightened Raja of Travancore later established the Charity hospital in the Residency in 1837. Appointment of a highly qualified European trained doctor as the Durbar physician further facilitated the progress of Western medicine in Travancore. At the same time Malabar as a district under the Madras Presidency did not have such facilities during this period. There was neither any 'progressive princess' nor any Residents to take up the task of dissemination of Western medical practices.

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562 Ibid.

563 David Arnold, "Colonizing the Body", op.cit., p.147.

Nevertheless, the number of patients treated increased annually as there was a wide prevalence of epidemics and other diseases in Malabar. Another dispensary was opened in Tallsserry in the year 1849.[564] Fifteen in-patients and 165 out-patients came for treatment in that particular year. The third dispensary was opened in Cochin in the year 1850 and treated eight in-patients and 90 out-patients in that year. In 1853 the number of patients treated in these three dispensaries rose to a countable number.

Patients treated	**1851**	**1852**	**1853**	**1854**	**1855**
Calicut	1,887	2,146	3,287	3,235	4,885
Tallasserry	588	2,146	2,610	2,270	916
Cochin	1,902	1,586	3,097	3,172	3,598

Table 35: ***Statement of patients treated in the dispensaries of Malabar, 1851-55.***[565]

However, the more pathetic condition was that the total population of Malabar had to depend merely on three dispensaries of Western medicine. By this time the princely state of Travancore had made tremendous progress in dispensing Western medicine. Not only dispensing smallpox vaccination, but the state had also initiated curative medicine in Western medicine, by establishing a number of dispensaries in different parts of Travancore. The prevalence of smallpox in a virulent form posed great threats to the natives of Malabar.

The year 1855 posed major threats to many areas of the Presidency including Malabar, due to the prevalence of food shortage and price hike for grains and other commodities. Fortunately, occurrence of epidemic diseases was comparatively less the previous years. This naturally brought the mortality rate down from the previous years.[566]

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564 *Selections from the Records of the Madras Government, No.VII, Report on Civil Dispensaries for1853*, Madras 1855, pp.2-3.

565 Ibid.,p.3

566 Selections from the Records of the Madras Government, No.VII, *Report on Civil Dispensaries for1855*,Madras 1856,p.2

In the year 1862, the Madras government sanctioned a new specialty hospital to be opened at Calicut named the 'Smallpox Hospital.' It was necessary to have such a hospital since the occurrence of smallpox had been a major threat to the natives of the Malabar. However it seems that sanctioning of such a hospital by the authority was too late to combat the epidemic. Moreover the existing dispensary showed a decrease in the number of patients treated in this particular year. One of the main reasons for such a tendency was due to the presence of a large number of police patients in the dispensary. As the Assistant surgeon noted

"…the Police have no Hospital, they have many sick and give considerable trouble to the Medical Officer; their presence in the dispensary is most objectionable ,as they not only occupy space, which might be otherwise employed for poor patients, for whom the accommodation is intended,…"[567]

This indicates that unlike in Travancore, there were no separate hospitals or dispensaries either in the jails or in the police stations premises to provide European medical care in Malabar at least to their own people by the British paramountcy. Whereas in Travancore, the Jail hospitals served the prisoners as well as the police officials. Adequate funding was made by the princely rulers, annually, for the well-functioning of such institutions in Travancore.

Since 1877 the number of patients visiting the hospitals in the Presidency increased enormously. This was mainly because of the debris of famine in many areas of the Presidency.[568] Malabar was not an exception in this regard. In Malabar also famine brought hunger-deaths, epidemics, and other infectious diseases. Diseases like

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567 *Annual Returns of the Civil Hospitals and Dispensaries in Madras for the Year 1862*,Madras 1863,p.6

568 Starvation was one of the debris of famine throughout the madras presidency creating great havoc to human life. There were mainly two famines occurred in madras during the colonial period. The first famine occurred in the year 1876-78 in which more than 5.5 million deaths were reported form the British territories. The second famine occurred in the period 1896-97 taking more or less the same number of lives which occurred in the previous one. However, exact statistical returns are not available in the colonial records so far. Thus, as David Arnold opines "Starvation as such did not figure in the statistical accountancy of India's nineteenth century famines. Like many governments of before and since, the British administration in India was reluctant to face the political opprobrium associated with mass starvation and excluded it from the statistical returns, thus throwing the burden of recorded mortality upon a small number of specified causes…David Arnold, 'Social crisis and Epidemic diseases in the famines of nineteenth century India.', *The Society for the Social History of Medicine*, 1993, p.387.

syphilis increased abundantly. Syphilis was one of the 'contributions' made by the Europeans to the presidency. The 'concubinage' system practiced by the British military men and other officials had far reaching impact on the spread of this infectious disease throughout the Madras presidency.

In the beginning of the year 1879 there were total 12 dispensaries spread across Malabar. Apart from these there was a Leprosy Hospital at Chevayur and a Smallpox Hospital in Calicut, of the Malabar District. These two hospitals were considered as special hospital by the Madras Presidency since it was built mainly for treating the leprosy patients and smallpox patients respectively. The other 12 dispensaries were located in the following locations of Malabar.

No.	**Places**	**No.**	**Places**
1	Anjenjo	7.	Manjery
2.	Badagara	8.	Palaghat
3.	Calicut	9.	Palliport
4.	Cannanore	10.	Ponnani
5.	Cochin	11.	Tallicherry
6.	Mananthavady	12.	Vythiri

Table 36***: Dispensaries in Malabar, 1879***[569]

At the end of the year one more dispensary was added, and thus, by 1880, the number of dispensaries rose to 13. Malabar district during this period included 10 taluks and the estimated population of that particular year was 2,253,258.[570] If we look at the situation in Madras as the capital of the Presidency, the number of hospitals and dispensaries were comparatively very high.[571]

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569 *Annual report of the Civil Hospitals and Dispensaries in Madras for the year 1879*, Madras, 1880.

570 *Annual Report of the Civil Dispensaries of the Madras Presidency for the year 1883*, Government of Madras, pp.39-47.

571 During this particular year besides dispensaries, there were 12 hospitals of different types in Madras. This includes a General Hospital, a Lying-in- Hospital, one Lunatic Asylum and a Leper

This intended concentration of medical institutions in Madras had many implications. First of all Madras was one of the trading centers for the British as a port city, and therefore, the British had to maintain large military barracks at this station. For the security of military men it was necessary to have adequate hospitals and dispensaries at this center. This situation adversely affected the provinces like Malabar. And therefore, majority of the native population in Malabar depended mainly on the native *vaids* whenever they were sick. But in the eyes of colonizers, these *vaids* and the indigenous medicines were quack and superstitious imbibed with caste and religious elements.[572]

Dispensaries	**1879**	**1880**
Provincial Services	2	2
Local Funds	5	6
Municipalities	6	6
Missionaries	Nil	Nil
Private	1	1
Total	**12**	**13**

Table 37: ***Dispensaries under various categories in Malabar.***

asylum etc. All these medical institutions were concentrated within the township of Madras itself. This facilitated the British to have easy accessibility for Western medicine for their own people serving in the Military barracks and other offices in the Presidency...For more details see, *Annual Returns/Reports of Civil Hospitals and Dispensaries of Madras* for various years, Government of Madras.

572 Burton Cleetus has made a detailed investigation in this regard. While dealing with how the colonial intervention redefined the indigenous health care system in Kerala, he states that interpretations regarding the relationship between western and indigenous ideas often failed to address the internal differences among the substantial heterogeneity of health care practices and methods of various castes and social groups, in a diversified social stratum. As the concept of caste became negated under the overreaching frame work of modernity, the same was the case with its scholarly enquiries with medicine. Healing techniques in this contemporary context was a combination of cultural and religious practices, which were integral to, or independent to the therapeutic practices of the dominant Sanskrit tradition. Burton Cleetus, op.cit.,p.86.

Dispensaries	Total Treated	Category of the Dispensary
Anjenjo	N/A	Government
Badagara	N/A	Local Fund
Cannanore	192	Municipality
Calicut	532	Municipality
Cochin	596	Municipality
Manatavady	268	Local fund
Manjery	393	Local Fund
Palaghat	335	Municipality
Palliport Lozaretto	35	Government
Ponnani	115	Local Fund
Tellicherry	279	Municipality
Vythiry	551	Local Fund

Table 38: ***Total Number of in-patients treated in the year 1879***

It is to be noted that only one dispensary was newly opened in the year 1880. Thus there was a ratio of .006 dispensaries per 1,000 populations in 1879 and the same in 1880 also, in Malabar. According to the Annual Report of the Civil Dispensaries for the year 1883, the total population of the year was 2,365,035. In this particular year epidemics of various types occurred, and its diffusion was widely prevalent in Malabar. Most of the southern districts were affected with cholera.

In this particular year the total number of dispensaries maintained by the government was three only. Five dispensaries were under the control of different Municipalities and six dispensaries were belonged to the local-fund category. Thus there were only 13 dispensaries and two hospitals in Malabar during this particular year. More centers of Western medicine were needed during this year as there was a

wide prevalence of epidemics like cholera and smallpox in Malabar.[573] This situation of course, increased the mortality rate in Malabar. Deaths due to smallpox and cholera were predominant in Malabar. Occurrence of Malaria, Syphilis, and Dysentery also increased the mortality rate.

During this period in the presidency, dispensaries were classified according to their status in the locality.[574] As per the Annual Returns/Report of the Civil Dispensaries in Madras, there was only one 1st class dispensary in Malabar. Other 12 dispensaries were under the 2nd class category. Thus the ratio of dispensaries for 1000 population was only .005 in 1886.

No hospital or dispensary was additionally opened in the year 1886. Therefore, the number of dispensaries remained the same even after five years in Malabar. It ultimately shows that the government was reluctant to sanction additional hospitals and dispensaries of Western medicine for the natives of Malabar. Even after the transfer of power from EEC to the Crown in 1858, their interest remained particularly military and commercial, and therefore, they did not pay much attention to the health care of the native population.

While at the same time the situation was very different in the princely state of Travancore. As a result of strong patronage of both the Rulers and Missionaries to Western medicine, Travancore achieved tremendous progress in health care. The indirect rule of the British in Travancore could not ignore the health of the natives

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573 "Annual Report of the Civil Dispensaries of the Madras Presidency for the year 1883", op.cit., pp. 30-196.

574 Hospitals and dispensaries were classified in Malabar under Madras presidency as follows. Class 1:State Hospitals and Dispensaries, including all institutions maintained y provincial funds and under Government management.(According to the Government Order No.1014 dated 19th May 1883, the fact that an institution is possessed of endowments or receives contributions from local funds or private subscription ought not to remove it from this category so long as provincial funds are practically responsible for all the charges connected with it.); Class II: This category includes all institutions which are vested in local boards or guaranteed or maintained by local funds.(The fact that such institution is aided by private subscriptions or receiving assistance from Government in the shape of the part of the salary of the Medical officer, grants of medicine, or otherwise, ought not to remove it from this category as long as its existence is practically dependent upon local funds.);Class III: This category included particularly of two types of private institutions;(A):Those entirely ,maintained at the coast of private individuals or associations(the fact that the government supplies superior inspection or register, ought not to remove an institutions form this category.);(B): Institutions supported by private subscriptions or guarantees, but receiving aid from Government or local funds…*Civil Medical Code,Madras*,1901, Compiled by the Office of the Surgeon General,Madras,p.122

because of the presence of the princely rulers. The following table shows the number of hospitals and dispensaries in Travancore and Malabar in the year 1885.

Travancore 1885		**Malabar 1885**	
Hospitals	**Dispensaries**	**Hospitals**	**Dispensaries**
4	27	2	13

Table 39: ***Number of Hospitals and Dispensaries in Travancore and Malabar, 1885***[575]

The table shows that the number of medical institutions, of both hospitals and dispensaries, in Travancore was even more than double in the number, than which existed in Malabar in 1885 ; and during the period 1897-98, there were totally 49 medical institutions in Travancore. Among these, 31 were hospitals and 18 were dispensaries of various types. This shows that even though many of these institutions started merely as dispensaries, the Travancore government enthusiastically upgraded many of them to the status of hospitals. Thus the number of district hospitals rapidly increased in Travancore. Thus in 1897-98 there were 21 district hospitals in Travancore run by the government.

[575] *Annual Report of the Civil Hospitals and Dispensaries in Madras for the Year 1885*,Madras,1886; TAR for the year 1884-85, Government of Travancore, Trivandrum.

Class or Sex of patients treated	Number
Men	49,399
Women	18,472
Children	20,869
Europeans	332
Eurasians	8,843
Total	97,915

Table40: ***Statement showing classes and sexes of the patients treated in the dispensaries in Malabar- 1886***[576]

In the year 1889 there were total 18 medical institutions in Malabar with an addition of 3 more dispensaries. In that particular year 1,256 in-patients were treated in these institutions. The rate of mortality increased due to the occurrences of cholera in the district. So the total number of deaths due to cholera during that particular year was 6,153. This large increase in mortality from the disease was distributed all over the district. Smallpox was also widely prevalent, which tolled lives of 1,770 persons in that particular year.[577]

One of the important factors to be noted in this particular year was that the number of hospitals had been increased. There were total 11 hospitals and seven dispensaries in Malabar. This means that although there was not an adequate increase in the number of medical institutions, some of the existing dispensaries had been upgraded to the status of hospitals. Only three new medical institutions had been added in this particular year. The hospitals were under the charge of trained apothecaries, and among dispensaries except one, 6 were under the charge of hospital assistants. Among these institutions, only one hospital was under 1st class category.[578]

576 *Annual Report of the Civil Dispensaries and Hospitals in Madras for the year 1886*.Madras, 1887.

577 *Annual Report of the Civil Hospitals and dispensaries in Madras for the Year 1889*,Madras,p.13

578 Ibid., p.14.

Compared to princely Travancore, the hospitals and dispensaries in Malabar was functioning not under the charge of the durbar physician or assistant surgeons. Most of these hospitals and dispensaries were run by the civil apothecaries, who sometimes did not possess essential or adequate qualifications required for running such an institution. However, the district surgeon had to visit each hospital and dispensary at least once a month and make a detailed enquiry report regarding the functioning of each of them. Thus, absence of trained doctors in the dispensaries and hospitals also made a hindrance to the institutionalization of western medicine in Malabar during the colonial period.

According to the census of 1891, the total population of the Malabar district was 2,652,565. However, there were only 24 medical institutions in Malabar for dispensing western medicine for such a huge population in 1891. And majority of them had the status of dispensaries only. It is to be noted that there were total 414 hospitals and dispensaries in the Presidency in that particular year. But, very few numbers were located in Malabar. Thus, the ratio of dispensaries per 1,000 populations was 0.008 only.[579]

It was a period where the impact of famine was at the apex in Malabar. Many lost their lives due to starvation and epidemics. However, in 1891, after a war was fought in Burma, the British authority of the Presidency took a decision to post all newly joined surgeons or assistant surgeons in the military department for at least two years before their service was made available to the civil population.[580] Such a decision had an adverse effect on the natives of Malabar, who were suffering due to the prevalence of epidemics like cholera and smallpox more virulently in this particular year. A total of 5,385 persons died of cholera in the district, and it was in excess of the average of the three previous years.[581] Smallpox took the lives of a total 6,485 persons in that particular year.

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[579] *Annual Reports of the Civil Hospitals and Dispensaries in Madras for the year 1891*, Government of Madras, 1892, pp.2-4.

[580] Ibid., p.5.

[581] Ibid.,p.15.

In 1923 a new scheme was sanctioned by the local bodies to dispense western medicine to those areas where the governing bodies could not provide facilities for treatment in western medicine. As per this order, the private medical practitioners were allowed to open dispensaries in the rural areas. As the surgeon general noted "this scheme had been introduced with the object of bringing medical relief of the approved kind in to the areas out of reach of the existing hospitals and dispensaries which hitherto had no medical relief at all or had been left to the mercies of the unqualified village doctors and quacks."[582]

It was in this year that the systems of appointing honorary physicians were started in the presidency. As per this order, honorary medical officers were appointed in the important hospitals at Madras and Rayapuram of the Presidency. But, no such officers were appointed in the Malabar district for dispensing better health care to the natives of Malabar.

By the end of 1925, there were total 959 medical institutions of various types in the Presidency. However, there were only 46 medical institutions functioning in Malabar including 4 specialty hospitals, viz. the Smallpox Hospital, a Leper Hospital, a Lunatic Asylum and a Hospital for Women and Children, centered on Calicut in that particular year. At the same time the situation was very different in the Princely state of Travancore. There were total 31 major hospitals of different types and 35 dispensaries, constituting a total of 66 government medical institutions in Travancore. This number however, does not include the number of institutions run by the Missionaries and other private agencies in the state. Within four years, this number further increased to 82 by opening 31 more dispensaries in many parts of the state.[583]

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582 *Triennial* R*eport on the Working of the Civil Hospitals and Dispensaries under the Government of Madras for the ye years 1923,24 & 25*,Governemnt of Madras,Madras,1926,p.2

583 For more details, see Chapter no.3 of this thesis.

Year	Number of Hospitals	Number of Dispensaries	Total
1924-25	31	35	66
1925-26	31	36	67
1926-27	31	42	73
1927-28	31	51	82

Table 41: ***Medical Institutions in Travancore, 1924-28***

Thus, by 1928 the number of government medical institutions in Travancore was increased to 82. Of them, as shown in the above table, 31were hospitals of different types and 51 were dispensaries in various categories. This number further increased rapidly since 1930 and by 1947-48 there were total 143 government medical institutions in Travancore. Five major hospitals and 27 minor hospitals were there in Travancore in this particular period. Total number of dispensaries rose to 107.There was four special treatment centers for the diagnosis and treatment of leprosy in Travancore. However, it does not mean that this number catered to the needs of the total population of Travancore. There were still many areas, particularly in the moffussils, where the access of western medicine had not yet reached. But, when we compare the situation with colonial Malabar, we could see that the situation was much better in Travancore.

Government Medical Institutions (Western medicine)	Travancore	Malabar
Major Hospitals	5	4
Minor Hospitals	27	Nil
Dispensaries	107	52
Leprosy survey and treatment centers	4	1
Total	143	57

Table 42***: Medical Institutions in Travancore and Malabar 1947-48***

Women's Health Care in Malabar:

One of the important areas through which Western medicine made its offshoots in India was women's health care. In the early days, labour cases were attended by local *daais* in Malabar. Women's health care was a totally ignored area for the British in Malabar. There were neither any specialty hospitals for women's health nor any training school for midwifery in Malabar until 1900. It was in 1885 that the Dufferin Fund was constituted. Even after five years of its functioning, Malabar did not get any benefit out of it under the Madras Presidency.

Compared to Travancore, Malabar was far behind in providing health care facilities in Western medicine for women. The health care of women had received government attention in Travancore as early as 1865. With the opening of the civil dispensary Raja Ayilyam Thirunal, on the suggestion of the then Durbar physician, Dr. H. M. Ross, also sanctioned the appointment of a qualified midwife (Mrs.Ashton) in the department to render service in obstetric cases.[584] In this year a separate lying-in-ward, attached to the General hospital, started functioning.

Women hospitals were opened in other parts of Travancore in the 1880s. Establishment of Women and Children's Hospitals at Thycad, Trivandrum immensely contributed to the growth of women's health care in Travancore. There were four major hospitals and one dispensary, namely Fort dispensary, for women health care in Travancore during this period. The establishment of Victoria Jubilee Mission Hospitals at Quilon was a milestone in the history of women health and midwifery in Travancore. This was established predominantly to train adequate midwives required for various hospitals and dispensaries under government control in Travancore.

While in Malabar, absence of any such institution caused severe shortage of women health care facilities in western medicine. Until 1904, there was no special dispensary or hospital opened for women health care in Malabar. Until this time, a main hospital for women and children was located in Madras only, and therefore, the natives of Malabar did not have any access to that institution. For instance, there were three main medical institutions dispensing western medicine for women in Madras in

[584] G V Subramani Aiya, op.cit.,p.15.

1880. This included a lying-in –hospital- dispensary, a Female Asylum and a lying in hospital-midwifery.

In 1882 the Hospital for Women and Children stared functioning in Egmore, near Chennai. This, formerly known as the Vepery Hospital, was transferred on 1st April 1882, to a Female department of the General Hospital for in-patients. Initiatives were taken in the same year by the Public Works Department to transform the old Lying- in- Hospital into a General Hospital for Women and Children in Madras.[585]

It was in 1904 that the first dispensary for Women and Children started at Calicut in Malabar district. In 1925 only 815 women were treated out of total 974 patients visited in the hospitals. Apart from this, 55 female children and 104 male children also were treated in this dispensary. Within a few years this dispensary was upgraded to the status of a 1st Class Dispensary and later into a major hospital for Women and Children in Malabar. In 1925 there was an annual visit of total 4,31,341 women patients (both in and out patients) in the dispensaries of Malabar excluding the Women and Children Dispensary opened in 1904 at Calicut. That means an annual average of 11,658 women patients in each dispensary. This further means that there was a daily visit of 32 women patients in each dispensary in Malabar in that particular year. However, the government was very much reluctant to sanction any special dispensary or hospital for women in Malabar until 1947. Malabar was ignored in such a way that for the British the natives were mere servants who worked in the fields and plantations.

Maternity and Midwifery

According to Sean Lang, the main factor which drove nineteenth century European interest and involvement in Indian maternity was concern at the very high death rate among parturient women and the need to lessen "so fearful a loss of life".[586]

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585 "Annual Report of the Civil Hospital for the Year 1882", op.cit.,p.xvi.

586 Sean Lang, 'Obstetrics and Obstruction: Maternity Provision in Madras, 1840-1852', in Mark Harrison, Margaret Jones and Helen Sweet (eds.), op.cit., p.108; T L folly notes that "a Malabar woman, who dies in labour without giving birth was not burnt or buried with the foetus in the womb, a Rapedor (Indian barber/surgeon) was called in and given new knife, with which he opened the abdomen. When he saw the foetus, he did not touch the body anymore, but called for the midwife, who pulled out the foetus and the placenta, and threw it away whether it was alive or

However, it is apparent that the British authority was not only reluctant to sanction special dispensaries or hospitals for women, but they were also not interested in appointing adequate midwives to the existing medical institutions in Malabar since the early nineteenth century.[587] For instance, there were only four midwives appointed in the four hospitals in Malabar, until 1885, each at Palaghat, Manjeri, Ponnani and in Calicut. They altogether attended only 76 cases during that particular year. In 1891 there were only 5 midwives attending a total of 206 maternity cases in different hospitals and dispensaries in Malabar.[588] This number not even constituted one percent of the maternity cases in Malabar, annually.

The natives had to depend merely on the local and traditional *dais* or *vayattattis*, as they were known in different names, for attending the delivery cases. In many instances this lead to the increased infant mortality rate because of these women's ignorance in medicine.[589]

Medical schools for training of nurses or midwives existed in some hospitals located around Madras and other surrounding areas. In 1928, there were the General Hospital, Madras, the Rayapuram Hospital, Victoria Caste and Gosha Hospital, Madras, Government Head Quarters Hospitals at Vishakhapatnam, Guntur, Salem,

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not….and some years ago I was called for a Malabar woman who had been in painful labour for three days. When I arrived she had been dead for about a quarter of an hour and the abdomen was still warm.As there was no violent haemorrhage, I thought the foetus might still be alive, and after much fuss I obtained permission to open her. The foetus was alive but weak, and after it lay with its back to the mouth of the uterus. Had the midwife understood how to turn the baby, both mother and child would have been saved, but there is no midwife who knows how to do that sort of turns." Niklas Thode Jensen, 'The Skills of the Malabar Doctors in Tranquebar, India as Recorded by Surgeon T L folly,1798',*Medical History*,Vol.49,2005,p.501.

587 Colonial Records on Malabar themselves reveal that provision for the availability of maternal care and child birthing was scarce in Malabar in the Madras Presidency since the beginning of the nineteenth century, particularly after the arrival of the benefits of Western medicine in the colonial context. For instance see, *Annual Returns/Reports on the functioning of civil hospitals and dispensaries in Madras for various years*, Complied by the office of the Surgeon General with the Government of Madras, Madras-1850-1947.

588 "Annual Report of Civil Hospitals and Dispensaries for the year 1891",op.cit.,15

589 The *dai* considers herself qualified to attend all labour normal and abnormal, and all the pelvic diseases. Cleanliness is a thing unknown to her. Soap and Water are her great enemies. Often she is so dirty she stinks, and her hands and nails are covered with dirt, particularly the nails which are long and perfectly black on account of dirt underneath. To ask her to wash her hands before making an examination is to inflict on her a great unforgivable indignity. Vera Anstey, *The Economic Development of India*, Green Longmans, New York, quoted in Geraldine Forbes,op.cit.,p.79;also see, Sean Lang, 'Drop the demon Dai: Maternal Mortality and the State in Colonial Madras',1840-1875,*Social History of Medicine*,Voi.18,no.3,pp.357-378.

Tanjaore, Calicut and Mangalore. Thus, in effect there was only one training school for the midwives and nurses in Malabar until that particular year.

But this school was also not producing a sufficient number of midwives required at least in the hospitals located at Calicut. It was mainly because, as per the government order, it was clarified that since the medical school at Calicut was not attached to the Medical College in the Presidency, the training of pupils was limited to the first 12 or 18 months of the course, and for further training these students were sent to any other major training centers attached to a Medical College.[590] Moreover, whenever these students completed their courses, they were mainly recruited in the hospitals located in the capital city only. This situation remained unchanged in Malabar even in 1947. Therefore, the access for Western medicine, especially for women was an unfulfilled blessing for the natives of Malabar until 1947.

Travancore had made rapid strides in the field of women's health care since the eighteenth century itself. At the end of the 19th century, educational courses were started by the Travancore government for the health care of women. Courses were offered in midwifery, gynecology, sick-nursing and the management of children in different parts of the state. The Maharaja Aayilyam Thirunal himself translated a paper entitled 'sick-nursing' in to Malayalam,[591] which further helped to spread the message of the importance of nursing in the state. Thus maternity and child birthing attracted the attention of the ruling rajas even as early as 1860. When a separate lying-in ward was opened in the civil hospital in 1866, more women patients started visiting the hospital.

Yet another innovative venture from the part of the Travancore State was the sanctioning of permission to train Nair women to visit the households of the higher castes to attend delivery cases. Hence, eight Nair women were recruited as trained midwives in obstetrics and child care. Such a situation was not there in Malabar, where the social taboos and caste system was at its height along with the government's reluctance. In 1893 itself the need for a separate hospital for women

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590 *The Civil Medical Code Madras, 1928,Compiled in the Office of the Surgeon General with the Government of Madras*,Vol.1,Government Press,Madras,1929,p.38.

591 Koji Kawashima, op.cit.,p.119.

and children was fulfilled by the ruling rajas of Travancore by permitting the separation of the female hospital attached to the general hospital. Thus the maternity hospital came into existence in 1893.

It was in 1896 that a fully equipped hospital for women and children was opened in Travancore. An important decision taken by the government in this regard was the decision to appoint only female staff in the hospital. As pert this decision, initiatives were taken by the Travancore government to appoint a highly qualified lady doctor from England. Besides this, three lady apothecaries were also appointed. Two female compounder-students were appointed with a scholarship to provide service to maternity and child birth. The state also took initiatives to send female students for training in the Madras Medical College. Very soon it was followed by a decision to appoint a lady assistant surgeon in this hospital.

In 1916, after the opening of the new hospital for women and children by amalgamating previously opened maternity hospital, it was placed under the charge of a lady Indian doctor trained in London. Thus the hospital came under the full-fledged control of lady staff alone. Separate wards were built for maternity and other gynecological cases. From 1927, nursing course for female students were started in this hospital. The government also made it compulsory to appoint the newly trained women staff in government institutions only. Thus by 1936, this hospital stood fourth among the entire women hospitals in India in the number of maternity cases treated. However, it is to be noted that even by 1947 only 10 percent of the total labour cases were attended by trained midwives in western medicine in Travancore.

Public Health in Malabar

The colonial medical policies apparently isolated Malabar from Travancore adversely affecting the development of public health and sanitation. However, public health activities in Malabar started under the auspices of the Madras Government in the late nineteenth century. One of the earliest attempts of the Madras government with regard to public health in Malabar was the introduction of smallpox vaccination. As we have observed in the first part of this chapter, the policy of vaccination pursued by the colonial authorities were found to be immensely inefficient and ineffective. The colonial authorities were generally reluctant to appoint women vaccinators in

Malabar during the 19th and 20th centuries. As Arnold opines "financial constraints and a sense of what was politically and practically achievable in India held back further advances. For example, by the late 1930s several million smallpox vaccinations were carried out annually, but they remained largely voluntary. Despite the introduction of an India-wide Vaccination Act in 1880, in 1941 vaccination was compulsory in only 81% of towns and 62% of villages."[592]

Colonial authorities did not pay much attention to the development of public health and sanitation in the Presidency until 1880s as elsewhere in the other British provinces.[593] Initially, with the beginning of preventive medicine, vaccination against smallpox was the only major preventive measure stressed by the colonial authorities in the Madras Presidency. But, smallpox was not the only epidemic creating great threat to the empire. Cholera had a massive impact on mortality during the 1876-78 famine, as it had upon many other famines of the period: along with dysentery and diarrhea, it dominated the initial phase of famine mortality. For much of the following fifty years after 1817, treatment of cholera was confined to the European military needs.[595] From the low ebb of death in the Madras presidency in 1874, mortality from cholera rose steadily to 94,546 in 1875, to 1,48,193 in 1876, the first main famine year, then soared to 3,57,430 in 1877 before falling back to 47,167 in 1878. Epidemics cholera erupted in India roughly every half-dozen years during the nineteenth century, whether there was a famine or not, and often resulted in heavy loss of life.

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592 David Arnold, "The Rise of Western Medicine in India", op.cit., p.1077.

593 Although sanitary department was there, in 1870 they were merged with vaccination departments to have a central sanitary department. It was in 1880 that the Medical and Sanitary Officers were appointed in the Madras Presidency. In each districts they were known as the 'Civil Surgeons'. They had the charge of public health and sanitation in the districts of the Presidency. The local self-government policies of Lord Ripon strengthened the efforts to improve sanitation by increasing the availability of funds at the local level. In 1885, the Local Self-Government act was passed and local bodies came into existence. These were now responsible for sanitation at the local level but the adequate staffs were not provided by the Central Government. In 1912, the Government of India sanctioned the appointment of Deputy Sanitary Commissioners and Health Officers with the local bodies and released separate funds for sanitation…*Annual Reports on Civil Hospitals and Dispensaries on Madras for various years*, Government of Madras.

595 David Arnold, "Medical Priorities and Practices", op.cit., p.171.

As a disease caused by insanitary conditions, and especially of contaminated water, cholera found a favorable epidemiological niche among famine paupers as it did at other times among pilgrims, migrant laborers and soldiers, and played much the same role in famine mortality in India as other 'crowd diseases', like typhus or relapsing fever, did elsewhere.[596] Cholera had adversely affected the Malabar district. In 1890 alone, 5,385 persons died of cholera in Malabar. Total 17,808 persons died because of various fevers in that particular year. Lack of sanitary measures like drinking-water purification, chlorination, proper drainage systems, and absence of adequate number of medical institutions etc. were the causes of the prevalence of such diseases in Malabar. Smallpox also prevailed in this year in a virulent form and had caused 6,485 deaths against 391 in the previous year.[597]

In the year 1879, there was a general increase in the number of patients suffering from syphilis and other related veneral diseases in the Presidency. Disruption of family life caused by the famine had a ruinous effect in increasing this kind of diseases even among the rural population.[598] The military stations in the areas of Malabar, particularly at Cannanore, posed a major threat to the native population. Absence of any coordinated public health programs made the situation further hazardous. Many of the most important medical and sanitary investigations carried out in India before the 1870s, notably the Royal Commission on the Sanitary State of the Army in 1859 and the Cholera Commission of 1861, were prompted by official concern at the high level of sickness and mortality among the European soldiery, which was seen as a severe financial loss and a danger to Britain's hold on India.[599]

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596 David Arnold, Social Crisis and Epidemic Diseases", op.cit., p.393.

597 "Annual Reports of the Civil Hospitals and Dispensaries in Madras for the year 1890", op.cit.,p.15.

598 As per the annual reports , the admissions in the Civil Hospitals in the Presidency numbered 15847;in 1878 the number again rose to 21,170.In the year 1879,this number was further increased to 25,340.Apart from this, a total of 22,025 cases of gonorrhea cases were also treated in the Civil hospitals of the presidency. This further indicates that the number of patients had been increasing each year… "Annual Reports of the Civil Dispensaries for the Year 1879",op.cit.,p.7

599 David Arnold, "Medical priorities and Practices",op.cit.,p.168.

Year	smallpox	Cholera	dysentery	malaria	syphilis	gonorrhea	worms
1882	N/a	Na	1489	N/a	N/a	797	6247
1883	508	31	N/a	21,050	690	N/a	N/a
1884	312	250	N/a	17,689	666	N/a	N/a
1885	N/a	N/a	N/a	N/a	N/a	N/a	N/a
1886	109	61	Na	11,218	1,550	Na	Na
1887	N/a	N/a	N/a	N/a	N/a	N/a	N/a
1888	31	1,256	2,284	12,280	2,038	1,428	N/a
1889	22	117	2,907	14,333	2,251	1,823	13,106
1890	N/a	N/a	N/a	N/a	N/a	N/a	N/a
1891	491	408	2,804	11,312	2,648	1,548	15,677
1892	703	219	3,330	11,470	2,753	1,574	16,277

Table 43***: Statement of major diseases reported in the hospitals and dispensaries of Malabar, 1882-1892***[600]

The statement of various diseases shown above, indicate that the prevalence of certain major diseases was due to the insufficient public health and sanitation facilities in Malabar during these periods. For instance, malaria had been prevalent in a virulent form throughout all these years. Nevertheless, neither the local bodies nor the British authority took much initiative in preventive measures such as mosquito eradication, water purification etc.

With medical advice and assistance, measures were introduced in the 1860s and 1870s to try to tackle three of the main sources of ill-health and mortality, which were cholera, veneral diseases, and excessive drinking.[601] However, in Malabar,

[600] *Annual Reports of Civil Hospitals and Dispensaries, Madras for the years 1882-92*.Govenrment of Madras, Madras.

[601] David Arnold, "Medical Priorities and Practices",op.cit.,p.168.

prevalence of veneral disease such as syphilis and gonorrhea posed great threat not only to the British soldiery, but to the natives also. One of the major carriers of these diseases was the military men and other officials under the British. However, public health and sanitary measures were not adequate to tackle these problems for the British in Madras presidency until 1920.

Increasingly, then by the 1920s and 1930s, there was a reorientation of state policy, medical research, and sanitary practice away from the old 'enclavism' and towards a more India-oriented system of public health.[602] When the occurrences of cholera had a considerable fall in the 1920s, malaria occurred in the presidency in a virulent form. In 1925 alone 8,10,615 malaria cases were reported in various medical institutions in the presidency.[603] Even though the mortality rate was less, its occurrences posed a major threat to the natives of Malabar. Sanitary facilities were not adequate in this period also.

Until 1924, the natives of Malabar in the rural areas did not have many facilities in Western medicine. Their access to Western medicine in any form was very much limited. The great mass of the rural population had till then practically no experience of Western system of medicine, since there was no opportunity for coming into daily or occasional contact with western 'qualified' doctors.[604]

The Madras Public Health Act was passed in the year 1939, in order to strengthen public health and sanitation activities in the presidency. As mentioned in the beginning of the Act itself, the main aim of this act was to make provision for advancing the public health of the state of Madras.[605] According to the provisions in

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602 David Arnold, "Social Crisis and Epidemic Diseases", op.cit., p.393.

603 *Triennial* R*eport on the Working of the Civil Hospitals and Dispensaries under the Government of Madras for the ye years 1923, 24 & 25*, op.cit., p.83.

604 V R Muraleedharan, 'Rural Health Care in Madras Presidency: 1919-39', *Indian Economic- Social History Review*, 1987, 24:323, p.325.

605 Medical departments were under the control of the central government of the British until 1919. As per the Act of 1919, public health, sanitation, and vital statistics etc were transferred to the provinces. In 1920-21, Municipality and Local Board Acts were passed containing legal provisions for the advancement of public health in provinces. The Government of India Act passed in the year 1935 gave further autonomy to provincial governments with regard to public health and sanitation. And hence, the health activities were categorized in three parts: federal, federal-cum-provincial, and provincial. In 1937, the Central Advisory Board of Health was set up with the Public Health Commissioner as secretary to coordinate the public health activities in the country. In 1939, the Madras Public Health Act was passed, which was the first of its kind in British India. In 1946, the

the Act, it was directed the government to constitute a Public Health Board consisting of the following members.

a. The Minister of Public Health

b. The Minister for Local Administration

c. Three members of the Madras legislature nominated by the government

d. The Surgeon General with the Government of Madras

e. The Sanitary Engineer of the province

The Public Health Board could give advice to the government with regard to public health administration from time to time with necessary improvements. As per this Act, every village panchayath and municipality ought to have a Health Officer. Where in the area of a village panchayath or municipality there was no health officer posted, the government could nominate a medical officer serving in any health institution under the control of the village panchayath or municipality, concerned. Provisions were also included to appoint temporary health officers in case of emergencies such as outbreak of epidemics, or any other infectious disease in any local area.[606]

Thus, it was after 1939, that certain measures were undertaken by the presidency government to tackle public health issues in Malabar. Health Officers were appointed in every village to administer public health activities in Malabar. Thus, even until 1946, medical and public health provision remained woefully inadequate in Madras in general and Malabar in particular.

The situation was much different in Travancore, where the government had allocated funds for sinking wells for ensuring safe and pure drinking water facility in the rural areas in the 1920s. Even the cholera inoculation had received government attention as early as 1920s. Chlorination of water had been initiated by the

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Health Survey and Development Committee (Bhore Committee) was appointed by the Government of India to survey the existing health structure in the country and make recommendations for further developments…For more details see, *Madras Public Health Act Published in Fort. St.George Gazette dated 7 March 1939*, Governemt of Madras, Madras.

606 Ibid., pp.135-139

government in 1934 itself. The presence of Rockefeller Foundation in Travancore was yet another beneficiary factor for the development of public health programs as rapidly as possible.

Preventive health measures were strengthened by Travancore government in the early decades of 20th century by expanding the access of smallpox vaccination to rural areas also. Vaccination was made compulsory for school children, government officials, and by 1933-34 vaccination was made compulsory for all citizens of the state. When the Royal family got themselves subjected to vaccination, it further helped to diminish the foreignness and native apathy towards cowpox vaccination in Travancore. Thus by 1930s itself, the state could claim, although not completely, that they brought smallpox under control by adopting conducive public health activities. Filariasis was yet another disease which was brought under control by the government since 1933. Hookworm disease was also threatening the natives and the state had adopted different measures to control it from the 1920s.

When plague posed a major threat to the natives of Travancore in 1927-28, the government adopted many preventive measures like mass inoculation, rat-hole fumigation and house disinfections to arrest the spread of the disease. Malaria received the attention of the government only in the 1930s. Measures were taken to destroy malaria-causing mosquitoes and by 1947 the state could efficiently control the mortality rate due to malaria.

In 1928 the Travancore government approached the Rockefeller Foundation to extend their help to reorganize their public health and sanitation departments with innovations. By this time Travancore state had made rapid strides in Western medicine. There were 30 hospitals and 38 dispensaries, constituting a total of 66 institutions, under the control of the Travancore government and 18 grant-in-aid medical institutions under the control of missionaries and other private agencies. Among these, fourteen hospitals were run by different medical missions. These infrastructure facilities filliped the process of the development of public health and sanitation in Travancore in the early decades of the 20th century.[607]

[607] For more details, see Chapter no.4 of this thesis.

Conclusion

It is apparent that the growth of Western medicine in Malabar was a complex process until late 20th century. Vaccination had been warmly welcomed by the colonial administration in the early decades of the nineteenth century, as a token of its benevolence the proof of the superiority of western science over eastern "prejudice". Thus the state gradually, as Arnold opined "from an abiding sense of political insecurity and by rumbling discontent over this, and other forms of medical intervention, shied away from a more energetic vaccination program."[608] Curative medicine was further stressed by the state not through compulsion but by persuasion and accommodation of the indigenous minds.

Although the basic mode of transmission of smallpox was well known, and vaccination offered a potentially effective form of prophylaxis, vaccine operation, in many ways, the pioneer and exemplar of public health in India, ran in to repeated difficulties.[609]

Vaccination against smallpox in nineteenth century India was thus only partly constrained by popular opposition and apathy. In the areas of Malabar, where the prevalence of the epidemic posed a great threat to the lives of the natives, vaccination was necessitated because of the absence of variolation. But the ambivalent or hesitant attitude of the state and the divided nature of medical opinion were also critical factors. Seeing the health of its European subjects and servants as its first priority, the state was reluctant to make the financial and administrative commitment necessary for the affective assault on smallpox. Malabar, as it was abundant in natural resources had not been cared by the British in providing preventive health care. The same was the situation in the context of curative medicine.

When the state shifted their focus, one of the better ways to provide efficient health care was to establish and maintain well equipped hospitals or dispensaries dispensing western medicine in each village or in any defined area of the district, but

[608] David Arnold, "Colonizing the Body", op.cit.,p.158.

[609] Ibid., p.156.

unfortunately funds required to start a sufficient number of hospitals or dispensaries on the exiting line was not available.[610]

Only a few number of dispensaries were started in Western medicine until 1939. After the passing of the Madras Public Health Act in 1939, the state began to pay little more attention in dispensing Western medicine in Malabar. However, until 1947, the growth of Western medicine in Malabar remained sluggish. Hence the dissemination of Western medicine in Malabar remained an unfinished agenda of the colonial apparatus until the beginning of twentieth century.

[610] For more details, see, V R Muraleedharan, op.cit.,p.325.

Conclusion

The advent of Western medicine, and its institutionalization in Kerala was mainly due to the influence of several socio-political, cultural and economic factors under a colonial milieu. With the arrival of western education, the socio cultural scenario of Travancore began to change due to the influence of western ideals and values. The stigma of caste hierarchy was challenged through a series of social movements.

Western medicine did not arrive abruptly in India as part of the "new imperialism" of the 1880s and 1890s, but had an active history stretching back in to the 18th century and even earlier.[611] Western medicines' entry in to Travancore was made easier mainly by two factors: the smallpox epidemics that ravaged India in the 18th and 19th century, and the revision of the Treaty of Permanent Alliance between Travancore and the British, a turning point in the history of Travancore. The epidemics largely mystified with legends[612] about the smallpox goddess was treated in the religious realm causing great number of fatalities while at the same time ,the Treaty of Subsidiary Alliance gave the English East India Company the power to interfere in the internal administration of Travancore.[613] Thus, when Col. Munro took charge as the Resident of Travancore, he enjoyed all administrative powers from the Regent Gowri Rani Lakshmi Bhai.

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611 David Arnold, "Colonizing the Body",op.cit.,p.290.

612 For details see, chapter no.2 in this thesis.

613 Vineetha Menon, 'Contesting Healing Power and Knowledge: Health care in Kerala's Plural Medical System', *Samyukta-Journal of Women Studies*, Trivandrum, November 2009, p.1; The British intervention prepared the way for colonialist expansion in Travancore, at different stages. Rama Varna (1758-96), who succeeded Marthanda Varma, saw the rising power and territorial ambitions of Tipu Sultan, ruler of Mysore. This forced him to enter into an agreement for ten years with the English East India Company, known as the pepper contract in 1788. According to this Travancore was bound to supply a large quantity of pepper to the Bombay government, in return for arms and European goods. Further after seven years, a treaty of friendship and alliance was made by which the English East India Company agreed to protect Travancore form all foreign aggressions in the future. This treaty of 1795 strengthened the hold of the EEC over Travancore and it ultimately culminated in the creation of the office of the Political Resident in Travancore in 1800. A Thulaseedharan Assari**,** *Colonialism, Princely State and the Struggle for Liberation: Travancore-1938-48,* A P H Publishing Company, New Nelhi, 2009, pp.7-10.

Prevalence of smallpox in a virulent form posed a major threat both to the British and the natives of Travancore since 1800. Vaccination as a prophylaxis was introduced in Travancore in 1811. The British did not accept the indigenous method of inoculation. They viewed it as a practice mixed with superstitions and quackery. Hence, large numbers of smallpox vaccination units were established consequently.

As people expressed signs of alarm and apathy, the members of the royal family got themselves vaccinated. Then it was made compulsory for government officials, inmates of prisons etc. Shortly after this the proliferation of Western medical institutions was initiated in Travancore. So, Western medicine made its entry in to Travancore in the form of preventive medicine. Thus, appreciation of the benefits of vaccination slowly penetrated the lower strata of society; and the attendance at various hospitals and dispensaries was found to be equally divided between the higher and lower orders, but the latter predominated in numbers.

Being a protected native state under the British, vaccination against smallpox possessed much ideological value to the rulers of Travancore. The basic mode of transmission of smallpox was well known, and vaccination offered a potentially effective form of prophylaxis.[614] And therefore, the princely rulers considered vaccination as a symbol of their attempt to modernize their state. Compared to indigenous inoculation, the vaccine operation with cowpox itself was very simple in nature. This gave further advantage for its dissemination, despite even strong apathy among the natives. Thus, vaccination granted Travancore the unique opportunity to communicate to the British their willingness to toe the colonial line and disseminate a quintessentially colonial medical technology i.e. Western Medicine.[615]

Thus by the 1880s, vaccination in Travancore had been transformed into a much vaunted and public success story of the Dharma Raja's efforts to introduce the benefits of Western medicine to the public as charity. Hence, this would be considered as a political move from the parts of the rulers of Travancore to express their gratitude towards the British authority.

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[614] David Arnold, "Colonizing the Body", p.156.

[615] Aparna Nair, op.cit., p.34.

However until 1890s vaccination did not cover the rural areas. At the same time, the urban population of Travancore was under the law of compulsory vaccination. This once again proves that both the Resident and the princely rulers were obliged more towards the British than to their subjects. Vaccination in the form of a preventive system was partially successful in Travancore until 1920s. The British attitude towards disease and medicine was a major cause for this. As Arnold opines in the early decades of the nineteenth century, vaccination stood in the forefront of British attempts to promote western medicine in India. By the second half of the century, however, despite the considerable expansion of vaccination that was taking place, it was being seen in more routine, even menial, terms.

Moreover, the ruling Rajas also aided such an attitude. While the British wanted to concentrate more on their own subject, particularly the military personnel, they had never paid sufficient attention to smallpox as a virulent epidemic disease. Jennerian vaccination was their panacea to prevent the disease.[617] At the same time, the state policy in western medicine began to move towards curative medicines. As a part of it more hospitals and dispensaries along with asylums for both insane and lepers were established. Thus the British did not rely much on preventive medicine for a long time in Travancore.

From Prevention to Medicament

The state, soon after the introduction of smallpox vaccination, turned its attention to building sufficient infrastructural facilities at the beginning of curative medicine in Travancore for both the Britishers and the natives. As Arnold observes, there were several imperatives behind increasing western medical intervention. One was the growing realization, which first gained recognition in India during the course of the nineteenth century, that the health of the European soldiers and civilians could not be secured through measures directed at their health alone.[618]

[617] For more details, see, 'Conclusion', Chapter 2 in this thesis.

[618] David Arnold "Imperial Medicine", op.cit.,p.14.

Military losses to disease were particularly persuasive in forcing the British to taking responsibility for indigenous health. With causalities often heavier from disease than from battle, and given the military's importance to the maintenance of imperial control, the health of soldiers (especially white soldiers) was a high priority of the colonial state. But medical investigations, whether to veneral disease, or cholera repeatedly demonstrated that the sanitary and medical security of the military could not end at the barracks gates, but had to extend in to adjacent urban and rural areas and even to the indigenous population as a whole.[619]

Modernization was by no means synonymous with westernization in many countries. A bifurcated approach to modernization could be seen in some of the Indian princely states. It is possible to conceive of the dissemination of western medicine through the institutions of the hospitals, but this process, however, did not represent a uniform trend towards medical modernity.[620] Therefore, the rulers of Travancore had a vision that it was the apt time for them to modernize their state. So, being patrons of western medicine, they thought that the State would move ahead through a progressive path. Moreover, they even thought that such an initiative would prompt the British authority to appreciate the efforts of the rulers. Hence, they wanted to avoid any further threat of annexation form the side of the British.

The rulers of Travancore also realized that preventive medicine alone cannot protect the health of natives since there was rapid increase in the number of infectious diseases during that period. Hence, large numbers of dispensaries were built under the direct initiative of the Travancore government. Some of the dispensaries were soon converted to the status of hospitals. It was during the reign of Swathi Tirunal (1829-46) that curative medicine got much patronage.

Swathi Tirunal was a great patron of western education, medicine, dance, music and other cultural activities. A large number of medical institutions of various kinds in western medicine in Travancore flourished during his reign. Thus, beginning with the process of smallpox vaccination, the Travancore state gradually supported the vision and mission of the Residents of the state to cater to the needs of the EEC

[619] Ibid.,p.14

[620] Mark Harrison, Margaret Jones, Helen Sweet,op.cit.,p.2

authorities until 1850s. Thus it was during Swathi Tirunal's reign that the notion of modernity flourished in Travancore. For him the dissemination of Western medicine was a part of the modernization process of the state.

The speech delivered by the ruling Raja on the occasion of the opening ceremony of the General Hospital at the capital apparently proves that 'charity' was regarded by Travancore as one of the cardinal duties of the State. Hence, they considered the provision of means for the relief or mitigation of sickness and diseases as one of their prime responsibility as Ruling rajas. Although initially western medicine was dispensed for the treatment of European soldiers and government employees, the rulers of the state soon realized the necessity of disseminating it to their own subjects in the name of 'charity'.

The opening of a dispensary at the palace was thus an onset in the process of the institutionalization of western medicine in Travancore. Since then the state witnessed a rapid flowering of many Western medical institutions such as hospitals, dispensaries of various kinds, laboratories, asylums etc. The state put their best effort to attract the indigenous population to these institutions. Gradually, special institutions such as lunatic and leper asylums, contagious disease hospital etc. were also started at the state initiative. The beginning of such special institutions was done in line with the policies formulated by the British paramountcy. But the accumulation of a number of hospitals and dispensaries at the capital alone resulted in an incongruity of medical institutions in colonial Travancore.

As Poonam Bala opines "Imperial hegemony was expressed through a network of professional and colonial medical institutions, in the form of "bureaucracies, clinics and hospitals", also seen as emerging from the process of adaptation, accommodation that rendered Western culture and sciences difficult for representation in colonial cultures. In this respect medical hegemony was not limited to the traditional forms of treating the infirm. The notion of clinical gaze, establishing authoritative facts about the human body through an institutional nexus, also signified medical power that was intended to be achieved through such establishments."[621]

[621] Poonam Bala, "Bio-medicine as a Contested Site", op.cit.,p.2.

After the revolt of 1857, the nature of colonialism changed in India. It put an end to the direct rule of the East India Company and the British crown directly took over the charge of administration of India. Consequently, the power enjoyed by the Residents in the native States also began to decline. Interference of the Residents in the day-to-day administration of the native state also diminished. Thus, after 1858, imperial motives of the British paramountcy were explicitly expressed in India. It was against the EEC that the natives were more reluctant until this time. So this change in the nature of colonialism had a far reaching impact in Travancore as a princely state. Further as Arnold observes, even more than previously, western medicine after 1835 was taken as the hallmark of a superior western civilization, a sign of the progressive intentions and moral legitimacy of colonial rule in India and the corresponding backwardness and barbarity of indigenous practice.[622]

Patterns of Patronage

It would be all too easy to assume that the initiatives behind western medicine and public health came almost entirely from the British side and that Indians were merely enthusiastic recipients or outright resisters. But it is necessary to appreciate the role of Indian leadership and indigenous strategies of accommodation and appropriation in this process. One largely neglected aspect of this wider process, according to Arnold, is the role of Indian patronage.[623] In some of the princely states like Mysore and Travancore the princely rulers were the great patrons of western medicine.[624]

One of the motives which placed philanthropy and patronage clearly within the colonial field of force was a kind of benefaction with the British, often as a result of pressure from the colonial authorities. The British looked to the leaders of Indian society to take colonialism's hegemonic project.[625] Yet another reason for the development of patronage system was that the colonial powers took a narrow view of

[622] David Arnold, "Science, Technology and Medicine", op.cit.,p.290.

[623] David Arnold, "Colonizing the Body",op.cit.,p.268.

[624] Poonam Bala, "Bio-medicine as a Contested Site",op.cit.,p.2.

[625] David Arnold, "Colonizing the Body",op.cit.,p. 269.

its own responsibility for the health and welfare of the bulk of the Indian population; and until well into the second half of the nineteenth century, tried to restrict its financial and administrative commitments to those areas of immediate concern or inescapable involvement — like the army and the jails. It was therefore expected that the Indian soul bear at least part of the cost of their own medical provision, and individual philanthropists were pressed to fund the establishment of hospitals and dispensaries.[626] Moreover, as Poonam Bala opines, "the notion of clinical gaze, establishing authoritative facts about the human body through an institutional nexus, also signified medical power that was intended to be achieved through such establishments."[627]

Western medicine had the advantage of official patronage (both from the British as well as from the Princely rulers of Travancore), along with the Missionaries and various institutional infrastructure provided by the Municipality, Local Funds, Sanitary Commissions and Public Health departments in the state during the colonial period. Western medicine would not have achieved an 'official status' without the patronage it received from the Travancore government as well as from the missionaries simultaneously. For this the Travancore government ignored indigenous medicine until late nineteenth century.

Thus, the institutionalization of western medicine cannot be attributed solely to the state initiative. The sources of patronage for western medicine were multiple and the reasons for such patronage were complex, subject to variation on an individual basis. According to Arnold, medical patronage and philanthropy in India took many forms and sprang from a variety of motives.[628]

Patronage to Western medicine in Travancore was a triangular process. They, however, did not constitute a unique nature. At the apex the British authority was the patrons of western medicine. In the beginning of the colonial dominance of the British, EEC was merely a commercial body. But later on, when the power was transferred to the crown after 1858, the nature of patronage to western medicine,along

[626] Ibid.,p. 269.

[627] Poonam Bala, "Bio medicine as Contested Site", op.cit.,p.2

[628] David Arnold, "Colonizing the Body", op.cit., p.269.

with the nature of domination in India changed. Since then the health of the indigenous population became a subject matter for the colonial authorities. Nevertheless, their patronage, as we have seen, was very limited due to strict financial regulations.

On the other side, the rulers of Travancore were great patrons of western medicine. Their aim was multiple in character. The Princes seeking the approval of colonial regime, and forging a new role for themselves as agencies of public welfare, donated land and funds for building hospitals and dispensaries in their own concerned states. The Regent-Ranis and Princes of Travancore viewed western medicine as a progressive one, a powerful path to modernization of their state. At the same time they also wanted to ensure that their policies were in tandem with the colonial authorities. Hence, they always tried to avoid any further threat of annexation from the British. They had also realized that the native reluctance was more to the EEC than to the British paramountcy until 1858. Besides these, the ruling rajas of Travancore always believed in 'charity' as a 'Hindu dharma.'

Some private and philanthropic entrepreneurs such as the Rockefeller foundation also patronized western medicine. Besides these, there were also individual patrons to western medicine in Travancore. Their propaganda of hygiene and sanitation was in tandem with the notions of Western medicine. It was during the Diwanship of Sir C P Ramaswami Iyyer that many philanthropists, who came for treatment in different hospitals made financial contributions for those institutions. Thus, the triangular relationship between the princely state of Travancore, the Christian missionaries and the British colonial authorities was not static but constituted a more complex and changing situation.[629] The expansion of trade and commerce made the merchant communities very powerful patrons of various social activities.[630] It is also argued that western medicine developed as an important institution in the wake of economic and social changes. It was the growth of towns and increased social mobility which lay behind the rise of western medicine.[631]

[629] Koji Kawashima, op.cit., p.219.

[630] Madhuri Sharma, op.cit., pp.31-35.

[631] Ibid., p.36.

Thus in Travancore, the princely rulers acted like individual philanthropists for the promotion of western medicine. In Travancore the Resident of the State, Col. Munro initiated the process of dissemination of western medicine by persuading the Regent Rani Gowri Lakshmi Bhai. For instance it was due to the persuasion of Col. Munro that smallpox vaccination was stared in Travancore in 1811. Successive rulers thus became great patrons of western medicine in Travancore. Lieut. General Major Cullen was yet another influential Resident in Travancore in this regard. Many number of dispensaries and hospitals flourished in Travancore during his tenure. Thus the Travancore government under the persuasion of Residents directly funded Western medical institutions in the state.

Missionaries as patrons.

The third source of patronage to western medicine in Travancore was from the part of the Protestant missionaries. The Missionaries were great patrons of Western medicine in Travancore in the colonial period. They never competed with the Travancore government but always tried to be an ally in dispensing western medicine in the name of charity. However, the mostly circulated view about medical missionary in the late 19th century was that it was not done for a purely medical purpose, but used it as beneficent means to spread Christianity. Work was carried out where most converts could be won, not necessarily where the need was greatest.[632] Further, the missionaries viewed medicine as a tool to change the consumer habits of the native population. As per the Charter Act, the Company authority had reminded the missionaries about their responsibility to make the natives the main consumers of European goods in Travancore.

For the Travancore government, the Missionaries were not a rival force in disseminating Western medicine. In the area of medicine, the state and the Missionaries maintained a very favorable relationship.[633] Thus, the missionary groups particularly LMS could concentrate their medical activities in south Travancore. Further these areas were not much covered by the government medical activities. This

[632] David Hardiman, op.cit.,p.18.

[633] Koji Kawashima, op.cit., p.146.

area was mainly populated with the lower caste people. In the beginning, the state did not pay much attention in disseminating western medicine among the lower castes of Travancore.

The LMS, CMS, and the Salvation Army had sent doctors and medical professionals to India to render their valuable service as a part of charity. Many medical schools were established by them in different parts of Travancore. This mission groups had established well equipped dispensaries and hospitals particularly in epidemic-stricken areas in Travancore. In fact such initiatives from these groups were highly appreciated since the state was reluctant to provide medical care to the people of these areas. However, in spite of their quality and usefulness, the scale of the mission institutions was far smaller than that of the government institutions. For instance, in the year 1900-01, the government institutions treated more than six times as many patients as did the LMS institutions in the state. But in the area of education the mission institutions were at the top.[634]

For the missionaries, western medicine was a main medium for 'Christianization' of the natives of Travancore. They considered dispensing western medicine as charity work to reach the gospels of the Christ. Thus they tried to disseminate western medicine clothed with gospels. But Travancore government did not consider much of the religious influence of the mission institutions in medicine as seriously as in education.[635] Unlike in education, there were fewer criticisms from the higher castes against the medical mission. One of the reasons for this was that the government had realised the fact that higher castes were not much converted through medical activities by the missionaries. It might be mainly because the higher caste people were still reluctant to accept the benefits of Western medicine due to many reasons.

It was the reception of the system by the lower caste people that made western medicine much popular than before. If there had not been any acceptance of Western medicine by the lower castes of Travancore, the process of institutionalization of western medicine would not have happened even in the 20th century. Thus the mission

[634] Koji Kawashima, op.cit., p.147.

[635] Ibid., p.147.

dispensaries and hospitals were designed and acted as 'magnets' drawing patients from near and far to the missionaries.

Malabar

Unlike Travancore, the growth of Western medicine in Malabar was a bewildering process until late 20th century. Like in Travancore, smallpox vaccination had been introduced by the colonial administration in the early decades of the eighteenth century. Thus vaccination was considered as a token of its benevolence, the proof of the superiority of western science over eastern "prejudice". But the state gradually, as Arnold opined "from an abiding sense of political insecurity and by rumbling discontent over this, and other forms of medical intervention, shied away from a more energetic vaccination program.[636]

In the areas of Malabar, where the prevalence of the epidemic posed a great threat to lives of the natives, vaccination was necessary because of the absence of variolation. But the ambivalent or hesitant attitude of the Madras government and the divided nature of medical opinion were also critical factors. Seeing the health of its European subjects and servants as its first priority, the state was reluctant to make the financial and administrative commitment necessary for the affective assault on smallpox in Malabar. Malabar, as it was abundant in natural resources had not been cared by the British in providing preventive health care.

Curative medicine was further stressed by the state not through compulsion but by persuasion and accommodation of the indigenous minds. When the state shifted their focus, one of the better ways to provide efficient health care was to establish and maintain a well equipped hospitals or dispensaries dispensing Western medicine in each village or in any particular area of the district, but unfortunately funds required to start a sufficient number of hospitals or dispensaries on the exiting line was not available.[637]

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[636] David Arnold, "Colonizing the Body", op.cit., p.158.

[637] For more details, see, V R Muraleedharan, op.cit., p.325.

Only a few numbers of dispensaries were started in Western medicine until 1939. Until 1939, the Madras government had ignored Malabar in dispensing western medical care to the natives. Thus until 1947, development of western medicine in Malabar remained sluggish. This resulted in an incongruity in the development institutional infrastructure of Western medicine in Malabar compared to Travancore.

This incongruity and sluggishness in the development of Western medicine in Malabar was due to a variety of reasons. Primarily it was due to the absence of the system of patronage that Western medicine had a slow progress in Malabar. Unlike in Travancore, Malabar had not got the opportunity of princely patronage for Western Medicine. A triangular system of patronage was absent in Malabar. The Swiss Missionaries, particularly the Basel mission was not much active in disseminating Western medicine in Malabar. Moreover, their activities were more concentrated in northern parts of Malabar and South Canara.

Thus, in effect, institutionalization of Western medicine was rapid in Travancore and thus by the later part of the 20th century Western medicine became the most popular system of health care in Travancore. While in Malabar, due to the incongruity, Western medicine was still struggling to make it deep offshoots for institutionalization.

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