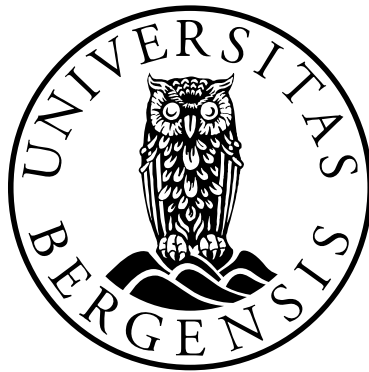


The Fear of Fever

Epidemic Persistence and Medical Authority in a Kerala Village

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In memory of N.V George



Source: http://www.kerala-travel-tours.com/maps_of_kerala/location-map-of-kerala.html

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SAJAN

ABBREVIATIONS

ASHA	Accredited Social Health Activists
AYUSH	Ayurveda, yoga, unani, siddha and homeopathy
BAMS	Bachelor of Ayurvedic Medicine and Surgery
BHMS	Bachelor of Homoeopathic Medicine and Surgery
CHIKV	Chikungunya Virus
DM	Doctor of Medicine
GP	General Practitioner
ICDS	Integrated Child Development Programme
IMA	Indian Medical Association
JPH	Junior Public Health nurses
KPHC	Keranad Primary Healthcare Center
KSSP	Kerala Sasthra Sahithya Parishad
MBBS	Bachelor of Medicine and Bachelor of Surgery
MCH	Magister Chirurgiae
MDA	Mass Drug Administration
NRHM	National Rural Health Mission
OP	Outpatient
PHC	Primary Healthcare Centers
PPC	People's Planning Campaign
RMP	Registered Medical Practitioner
TB	Tuberculosis

ABSTRACT

This thesis examines the socio-medical order that formed around epidemic fevers in Kerala following the chikungunya and H1N1 outbreaks between 2007 and 2009. I study its political interfaces, embodied aspects, implications for medical authority, and state responses. My aim is to explore the trajectories through which the fear of epidemic fevers unleashed a pan-Kerala social anxiety and triggered a change in the way physicians and the government-run medical institutions function at the grassroots level. In this regard, I carried out an ethnographic mapping of the post-epidemic situation in a central Kerala village named Keranad. The fieldwork was conducted over fifteen months between 2009 and 2013. I chose to focus my research on the public healthcare system, as it constituted the linchpin for the management of epidemic fevers. Such a focus enabled me to delineate the changing ways in which the Kerala state relates to its population through the institution of medicine.

The thesis basically deals with what is happening to the Primary Healthcare Centers (PHCs) following the epidemic crisis in Kerala, instigated by the large-scale outbreaks of chikungunya in 2007 and H1N1 in 2009. My central anthropological investigation revolves around the problem of the continual persistence of chikungunya, all through the post-outbreak period. Chikungunya outbreaks are more or less a closed chapter now, but they continue to remain, to be reproduced and reinvented in Kerala through processes that are not strictly medical in their character. This continual socio-cultural reproduction is not just due to the persistence of chikungunya symptoms among those affected during the initial outbreak phase. It is, rather, emergent from the relationships that stretch between the persisting chikungunya disease and the organization and exercise of medical power. Of special interest to me is how chikungunya persisted among those affected – even five years after its outbreak – and the various ways in which people understand and interpret their experiences. Through the technique of participant observation, I studied the crisis and reinvention of medical authority against the backdrop of persisting chikungunya.

PREFACE

Doing ethnographic research in Kerala offers its own challenges. Kerala is regarded by most scholars as “developed and enlightened”, not just among the Indian states but also in comparison with the majority of non-Western societies¹. The healthcare literature on Kerala, as I will elaborate in Chapter 1, envisions a social order made and remade across generations by health-conscious individuals. The enlightenment notion of an instrumental-rational actor, seeking healthcare as his or her conscious choice, conflicts with the anthropological emphasis on the intermingling of health-seeking behavior with a multitude of social processes. This rationalist approach overlooks the cultural forces that underpin “monitoring the body, recognizing and interpreting symptoms, and taking remedial action....to rectify the perceived abnormality as well as adherence to therapeutic advice, changes in treatment regimens (e.g., switching healers), and evaluation (and reevaluation over time) of therapeutic efficiency and outcome” (Christakis et.al, as cited in Singer and Baer, 2012, p.25). Like other anthropologists working on body and illness, I considered healthcare as socially and culturally organized, and as such produced by socio-cultural forces which are not simply “rational”. My ethnographic project will reveal the multiple social processes at play when Keralites go about seeking medical attention against the backdrop of the fear of fever triggered by persisting chikungunya and H1N1.

¹Kerala, though administratively just one among the 28 states within the Indian Union, is sometimes idealized as a ‘model’ society in the developing world, and for this reason it is compared with the goals and achievements of many Western countries. Crucial to the idealization of the ‘Kerala Model’ (Jeffrey, 1993; Parayil, 2000; Raman, 2010; Ramanathaiyer & MacPherson, 2000; Franke & Chasin, 1994) is the success of this non-Western society in achieving “unexpectedly high quality-of-life indicators for a relatively backward economy” (Issac, Franke & Raghavan, 1998, p. 17). Kerala is often celebrated as a social democracy (Herring, 2000; Sandbrook, 2006), and for some is similar to the development trajectory of the Nordic welfare states in Europe. According to Heller (2013), what distinguishes Kerala from other states in India but comparable to social democratic countries, is “the extent to which subordinate classes have been effectively empowered and mobilized and have seen their interests institutionalized in the state” (p.273). Kerala’s impressive gains in the statistical indicators of a ‘good life’, particularly the Human Development Index (HDI), have been the object of a literature too vast to cover comprehensively here. An anthropological engagement with the Kerala Model literature is given in Lukose (2009).

Plan of work

This thesis, excluding the preface and conclusion, is divided into six chapters. The introductory chapter provides the background details for the thesis. Besides reviewing the relevant literature, the chapter contains a brief elaboration of the pluralistic medical situation in Kerala. Special emphasis will be placed on the historical development of ayurveda and homoeopathy in Kerala as alternative medical systems supported by the state, along with the dominant biomedical system, locally known as “English medicine” and allopathy (Halliburton, 2009)². I will also explain the incorporation of the siddha and unani systems into the pluralistic public healthcare system in Kerala after 2006. Further, I will discuss the case of certain unregistered popular medics who lack formal qualifications and who are at times accused of quackery by established medical professionals. This chapter will give an overview of the ways in which the medical situation in Kerala – particularly that of allopathy – is represented in the existing literature. The underlying assumption in the development literature on Kerala is that healthcare is a rationally pursued end, driven by a high level of health awareness – especially among women – and the associated better utilization of existing medical facilities. In order to challenge the rationalist paradigms underpinning the healthcare researches in Kerala, I will analyze incidents involving attacks on allopathic hospitals by unruly mobs – a phenomenon which is recurrent and occurring all over Kerala, but not dealt with by any previous research. Since nowadays fever-related complications constitute a major reason for “hospital attacks”, it is important to analyze such incidents.

The second chapter will examine the trajectory through which fever was transformed from its existing natural form into a political object in Kerala. I view ‘fever politics’ as part of a categorical change in the language of politics, as part of a change in the legitimating terms within which the state and its practices and officials come to be authorized. Rising expectations of well being and rising demands for more state intervention in the health sector are embodied in such politics. Even though fevers have a seasonal pattern in Kerala, with a peak incidence during the

²Allopathic medicine is an expression commonly adopted by alternative medicine advocates, especially homeopaths, to pejoratively refer to modern medicine or Western biomedicine. Though this term is not accepted as a mainstream scientific one, I prefer to use it in this thesis because that is how modern medicine is locally referred to in Kerala.

monsoon months between June and September, fever politics could occur anytime during the year. Such a political engagement with fevers, as I will elaborate in this chapter, is part of a categorical change that started to unfold in Kerala politics following the outbreak of chikungunya and H1N1 fevers between 2007 and 2009. It marks a shift in focus away from the distributory concerns with poverty and social inequality that had been part of the political bases of the widely quoted “Kerala Model of Development”.

The third chapter is intended as an introduction to Keranad, the central Kerala village in which I did my doctoral fieldwork between the years 2009 and 2013. My intention in this chapter is to provide the relevant contextual details that are necessary to understand the ethnographic materials in the subsequent chapters. A brief account of the geographic settings and the people who live in Keranad – herein after called Keranadans – is also provided. The purpose of this chapter is to sketch the history and economy of the region, particularly the ways in which Keranad became vulnerable to the epidemic attacks of chikungunya in 2007. I will dwell on the so-called exceptionality of Kerala villages as it is crucial to understanding the emergent epidemic-prone situation in Keranad. The main focus will be on growing settlement patterns that provide suitable breeding sites and allow easy entry for mosquitoes that can carry chikungunya and dengue. By using insights from Ulrich Beck’s (1992, 1999) risk society framework, I will explain the medical trajectory through which Keranad turned out to be a destination of the global pandemic H1N1 as well. The framework of a risk society is useful for analyzing the social and cultural construction of the anxieties that Keranadans have been experiencing since the epidemic crisis between 2007 and 2009.

In the fourth chapter, I turn to focus on PHC’s community-level interventions in the context of the epidemic crisis posed by chikungunya and H1N1. The conceptual framework I am engaging in this chapter is David Armstrong’s (1983) notion of a ‘dispensary gaze’ which extends into the community through a new surveillance regime. The work of Michel Foucault (1973), from which Armstrong derives his ideas, emphasized how the late-eighteenth century ‘clinical gaze’ operated through the “pathology contained within discrete and passive bodies” (Skultans, 2008, p.100). This established a new ‘surveillance regime’ whereby medicine became

an important force for the mediation of state power and its re-organisation of society. There has also emerged a new panoptical order following the advent of community-based female healthcare activists.

In chapter five, I focus on the persistence of chikungunya in epidemic proportions among Keranadans at a time when there was no real outbreak of the disease. This chapter illustrates that – contrary to what the doctors and the state health department claim – chikungunya continues to pose an epidemic crisis, though not in the conventional sense of a disease outbreak. I will outline the manner in which the collective memories of the 2007 epidemic impinge on the everyday lives of the people, and the traumatic effects of chikungunya during the subsequent years. I will analyze the post-outbreak period as a phase in which chikungunya became involved in a complex and sometimes inconsistent web of social relationships. In the last section of the chapter, I elaborate on the continual reproduction of chikungunya during the doctor-patient interactions and its effects on the exercise of medical authority.

The sixth chapter explains how the authority of medical institutions becomes protected in the context of fever politics. In using ethnographic material from the Keranad Primary Healthcare Center (KPHC), the chapter explores the unfolding of a new type of medical authority against the backdrop of persisting chikungunya. I am concerned with how medical authority gets reinvented through the unfolding of a “distributory relationship” between patients and medical practitioners via the medicines that are freely dispensed through the outpatient (OP) clinics. In order to explain the emerging forms of sociality in outpatient clinics and how the revamped public healthcare system has become connected to patients, I will describe an incident that occurred in Keranad when I visited one of the KPHC- sponsored mobile fever clinics.

Method, approach and the material

Let me state at the outset that my use of the term “medical” in the thesis refers only to the clinicalised systems of healthcare provision and does not include the religious and spiritual aspects of healing. Since the dominant share of the medical encounters in Kerala takes place in the clinical context, these require a separate ethnography of their everyday institutional life.

What's more, the non-allopathic systems are also clinicalised and in Kerala operate as part of an alternative health system that often copies the symbolic ritual forms and procedures of western clinical medicine. These systems have appropriated in many ways the symbolic capital of the allopathic system. This rather narrow definition of the term 'medical' is more an attempt to focus on how the clinicalised medical systems are functioning rather than a device to constrain my field of analysis.

It should, however, be noted that this thesis does not fall into the category of 'hospital ethnography' (Geest & Finkler, 2004) – the division within medical anthropology that focuses on the everyday life and interactions in a hospital. Hospital ethnographers consider hospitals as “liminal spaces, where people are removed from their day to day lives, taken into a betwixt and between space of being diagnosed, treated, operated upon, medicated, cleansed etc” (Longa, Hunter & Geest, 2008, pp.71-78). They mostly focus on inpatient situations, which still operate as 'total institutions' (Goffman, 1961) to varying degrees. However, as I will elaborate in the fifth and sixth chapters, hospitalization or inpatient situations are not frequently experienced by those having problems associated with persisting chikungunya. I collected most of my ethnographic material from the OP clinics where doctors have only very limited control over the normal life of their patients. Since the outpatient situation involves the patient living in their own social world with the help of prescribed medications, my fieldwork mostly consisted of following chikungunya patients in their everyday lives and trying to infer the nature of the epidemic's persistence. Besides house visits, I observed patients during their daily sphere of activities outside the home. Chapter Five is based on my field research outside the hospital premises, both at the town center and residential areas in Keranad. It deals with the social world of those affected by persisting chikungunya pains and who frequently seek OP treatment, even three years after the outbreak. My aim is to delineate the intermingling of health-seeking behavior with complex social processes against the backdrop of the unfolding fever epidemics in a central Kerala village.

The principal period of fieldwork was between June 2009 and September 2010. It was supplemented by successive two month periods of field revisits in 2011, 2012 and 2013. It should be noted, however, that the beginning of my fieldwork was not the first time that I had engaged with Keranadans. In 2004, I had some short spells in the field in Keranad as part of a master's research project on environmental degradation in Kerala. The revisits to Keranad as a doctoral student were, for that reason, an exciting experience of "returns to the field".³ Though it was a few years since my previous fieldwork in Keranad, I had great difficulty updating myself on some of the new changes. Given my previous fieldwork experience, I had a good understanding of the region, which I had hoped would make things easier for my doctoral research. However, resuming fieldwork in Keranad was much harder than I expected. Great difficulty was found in relating observed life in Keranad with my past experiences. The fifth chapter is based on one factor that contributed to this discord – and it had to do with the mushrooming number of three-wheeled auto rickshaws, the so-called common man's taxi in India.

The historical details presented in this dissertation are prepared on the basis of interviews with seventy five senior Keranadans. Aged 65 years and over, they provided me with a valuable oral history of major events and changes that shaped Keranad after the 1940s. Their history was supplemented with a household survey that I carried out with regard to changing housing and land holding patterns in Keranad. In order to familiarise myself further with these recent changes and their relationship to the ongoing epidemic crisis in Keranad, I carried out visits to slum-like areas and waste dumping sites where mosquito densities were high. Since the increased 'consumption' of medicines is an important aspect of my study, I conducted interviews with medical shop owners and pharmacists in Keranad. In addition to these structured and unstructured interviews, I consulted people who have played a critical role in Kerala's public health system. This list include: junior public health nurses, Health Inspectors, female healthcare

³This usage is taken from the title of a book – *Returns to the Field: Multitemporal Research and Contemporary Anthropology* (2012) – which addresses the theoretical and methodological issues related with the return of anthropologists to their field work sites a number of times during their careers. The repeated returns to the field provided me, as Bruce Knauff rightly notes in the afterward to the volume, "greatly increased ability to appreciate and understand dynamics and parameters of social and cultural change" (p. 254).

volunteers, hospital attendants, local politicians, and the district medical officer. I have participated in some of the public health events that were organized in Keranad. These involved public health camps, health awareness meetings organized by the resident associations, household visits by health workers, and the sudden assignments of mobile fever clinics to different sites.

Before travelling to my principal fieldwork site, I should also mention that I spent a couple of weeks travelling through various parts of Kerala, in order to get a broad overview of the medical domain. The examples I draw on in the first, second and third chapters derive from that introductory fieldwork. The chapter pertaining to the politicization of fevers required close analysis of news paper stories and television reports, for these were important media which worked to politicise fever outbreaks. In order to briefly explain the naturalness once ascribed to fevers, I present some excerpts from a book of field notes I recorded in 2004 during my master's degree program at the University of Kerala. The remaining three chapters are based on participant observation and interviews I conducted in Keranad. The detailing of 'hospital attacks', which I discuss in the first chapter, is predominantly based on newspaper reports. Government websites were the source of information regarding the public health system in Kerala and recent policy shifts.

Chapter 1

SITUATING KERALA'S HEALTHCARE

The healthcare situation in Kerala is inherently pluralistic⁴ as two of the most prominent allopathic systems – ayurveda and homeopathy – have substantial infrastructure and immense popularity all over Kerala. All three forms of medicine enjoyed state patronage, regardless of the political standpoint of the government in power. Besides allopathy, the state has an extensive network of hospitals that use alternative systems of medicine. Ayurvedic and homeopathic hospitals have been around for many years, and are traditional systems that have been progressively modernized and transformed. Both these systems were incorporated into state structures and became legitimized by both the colonial and post-colonial state. What makes Kerala different from other Indian states is the institutionalization of multiple medical systems and the state patronage for such an order. One can find readily, in Kerala, public ayurvedic and homeopathic hospitals at all levels of healthcare provisioning. There are separate education departments for training in ayurveda and homeopathy and these receive special allocations from the state budget.

⁴ Medical pluralism can be defined as the “consecutive or concurrent use of multiple health care systems” (Kittler, Sucher & Nelms, 2008, p.50) in the same society. As has been widely noted (Bala, 2007; Dinges, 2014; Sujatha and Abraham, 2012) medical pluralism is an integral feature of the healthcare system in most parts of India. Charles Leslie (1977), who has conducted ethnographic and historical research on India’s medical pluralism, delineates five major distinct forms: biomedicine, indigenous medical systems, homeopathy, religious scholars and learned priests, and local folk healers (the latter including bone setters and midwives). Leslie’s ethnographic research underlined the intellectual coherency of the medical systems of contemporary Asia such as Ayurveda, Unani and Chinese medicine. His most pertinent tenet was that “each system consists of beliefs and practices connected by an underlying logic and each is underpinned by a coherent network of assumptions about pathophysiology, therapeutics and so forth” (Leslie & Young, 1992, p.4).

Ayurvedic and homeopathic systems

Ayurveda, meaning life-knowledge in Sanskrit, is regarded as the indigenous medical system of Kerala. The modern recognition of Ayurveda reversed what had previously been the case prior to Indian independence when this medical system was considered a backward superstition. The British stopped all kinds of state patronage that had existed in support of Ayurveda. They shut down all existing Ayurveda schools in the subcontinent, with the intention of promoting Western allopathic medicine as a way of civilizing and modernizing society (Prathikanti, 2007; Frawley & Ranade, 2004). For this reason, the revitalization of Ayurveda found a prominent place among the objectives of India's nationalist movement at the end of the nineteenth century. Hindu cultural revivalists believed it was important to make Ayurvedic knowledge accessible to the common man by translating classical Sanskrit texts into English and vernacular languages (Lal, 2003, Jones, 2004; Ganesan, 2010). The colonial government's support of allopathic medicine was regarded as having had a detrimental effect on the state of people's mental and physical health (Gyanprakash, 1999).

The nineteenth-century revival of Ayurveda was a multifaceted process. Besides the creation of teaching colleges for training physicians, the revitalizing attempts also aimed at systematizing the preparation and distribution of traditional medicines. The retrieval, systematization and dissemination of Ayurvedic knowledge was another area which was emphasized (Panikkar, 2002). There is an encompassing universalizing aspect in contemporary Ayurvedic knowledge which seeks to merge past customary knowledge with Western modern knowledge. Modern Ayurveda is "characterized by a tendency toward the secularization of Ayurvedic knowledge and its adaptation to biomedical concepts and practices whilst also seeking to formulate a unitary theory based on doctrines found in the classical Ayurvedic texts" (Wujastyk & Smith, 2008, p.2). Kerala provides a good example of how Ayurveda was revived and underwent a process of modern professionalization often under the patronage and active support of native rulers. At a time when the British were pushing forward modern medicine at the expense of Ayurveda, the native rulers of Kerala stood in favor of maintaining, promoting and reforming indigenous medical systems. In 1889 an Ayurvedic Padsala was started in Thiruvananthapuram by His Highness Sree Moolam Thirunal Maharaja. This was the first

ayurvedic education institution in British India. The Ayurveda Padsala was later upgraded to Ayurveda College.⁵ In addition to the centers for ayurvedic training, a separate department for ayurvedic medicine was started in 1917 (Spitzer, 2009).

The native rulers of Travancore, Cochin and Malabar also supported the localized attempts to revive and reform ayurveda along lines that could compete with the colonially promoted and ‘imposed’ system of allopathy. One such case is the establishment of Kottakkal Arya Vaidya Sala by P.S Varrier – an ayurvedic scholar and practitioner who was initially trained in the classical Gurukula system, and later acquired expertise in allopathic practice.⁶ When he launched the Arya Vaidya Samajam in 1902, with the rulers of Travancore, Cochin and Calicut as its patrons, Varrier drew up a manifesto for an ayurvedic revival (Panikkar, 2002). According to Varrier, ayurveda could regain its popularity only by “moving out of the old ruts, adopting modern techniques without detriment to its inherent qualities” (Arnold, 2000, p.179). In order to ensure consistent quality standards for ayurvedic drugs, Varrier set up his own pharmaceutical company. The growth of Kottakkal Arya Vaidya Sala in the twentieth century was phenomenal and it now has outlets in all towns and medium sized villages of present day Kerala.

The post-independent era witnessed a continuation of state support for ayurveda in Kerala. In all the 14 administrative districts, the state has established an Ayurveda Hospital with its own specialized medical staff. In addition, the state has established institutions for ayurvedic medical education and conducts bachelor, post graduate and paramedical courses. Besides providing degrees for trained doctors, the government ayurveda colleges in Kerala also offer specialist courses for nurses and pharmacists. Murphy Halliburton, the medical anthropologist who worked on psychiatric pluralism in Kerala (Halliburton, 2004, 2009), discussed the Government ayurveda mental hospitals which handle serious psychopathologies that have separate cells for violent patients.

⁵*Ayurveda Medical Education – Government of Kerala* (n.d) Retrieved September 17, 2014, from <http://eservices.kerala.gov.in/ayurvedic-medical-education>.

⁶ *Vaidyaratnam P.S Varier's Arya Vaidyasala Kottakkal*. (n.d.). Retrieved August 9, 2011, from <http://aryavaidyasala.com/%28S%28chd3jgvkcn43jpfnoxk4r0us%29%29/Index.aspx>.

Homeopathy was recognised in Kerala (in the former State of Travancore) as a legitimate approved system of medicine as early as 1928. In 1958, Kerala became the first state in India to establish homeopathic dispensaries in the public sector. Two years later, the government established a Homoeopathic Hospital with a 50-bed facility. Ever since their establishment, such hospitals have provided clinical facilities for training students of homeopathy. Between 1970 and 2000, Kerala witnessed a significant improvement in institutions and resources devoted to homeopathy education. This included the establishment of a Degree College in Homoeopathy with a regular post graduate course. This is an attempt to professionalize homeopathy and to give it almost a scientific status. It represents partly a movement by homeopathy from a folk-medicine that was often seen as a pseudo-science to a discipline that increasingly claims the status of a science and uses the state as part of this appropriation of western forms of legitimation. Ever since 1973, Kerala has had a separate Directorate for Homoeopathy with a homoeopath as the director. A manufacturing unit for homeopathic medicines was started in 1974. From 2005 onwards, there has been an epidemic control cell organized by the state which uses homeopathy and which is named the Rapid Action Epidemic Control Cell⁷. It dispenses medicines and organises meetings and seminars promoting health awareness. Homoeopathic medicine is also used in the prevention of epidemics, including chikungunya.

Quacks and quackery

It should be noted at the outset that doctor-patient relationships in both the allopathic and the alternative medical systems are largely structured by a healthcare system where only those who are professionally qualified and registered at the government medical council are deemed ‘official’ practitioners. Notwithstanding the fact that there exists a wide array of unregistered medical practitioners – mostly traditional healers⁸ – practicing all across Kerala, none of them is usually called by their clientele a “doctor”. The English word ‘doctor’ is used only to refer to those medical practitioners who have at least a bachelor’s degree in allopathic, ayurvedic, homeopathic, unani or siddha medicine from any of the recognised medical colleges in India.

⁷*Homeopathy Department, Government of Kerala.* (n.d.). Retrieved on October 16, 2012, from <http://www.homoeopathy.kerala.gov.in/index.php/unique-features>.

⁸ Traditional healers were known by the Malayalam name vaidyan.

There are significant facilities for training medical professionals belonging to the different medical systems, and those facilities can be either state-funded or private but with approval from government agencies. The minimum necessary qualification to practice allopathic medicine, Bachelor of Medicine and Bachelor of Surgery (MBBS), is a four and half year undergraduate course with one year residency training commonly known as house surgery. Specially-designed graduate programmes are also a feature of the non-allopathic systems. The Bachelor of Homoeopathic Medicine and Surgery (BHMS) and Bachelor of Ayurvedic Medicine and Surgery (BAMS.) course involve five and half years training and this includes a one year obligatory internship.⁹ The admission to these graduate programmes is restricted to those who pass an all Kerala entrance test and have also a good score in the higher secondary exams. Doctoring is therefore premised on the standards being stipulated by the state government to ensure that registered clinicians are following the scientific criteria envisioned for a particular medical system. To understand the qualitative nature of medical legitimacy in both its official and unofficial forms, it is worth discussing the case of quacks or so-called fake doctors in Kerala who often desire the same legitimacy as qualified doctors.

A quack¹⁰ is someone who uses the title ‘doctor’ to pursue medical practice without having professional training and qualifications adequate to qualify him or her to do so. Quacks are not someone indulging in unregistered healthcare practice as traditional healers, but are those pretending to be something that they aren’t. Notable here is the popularity of quacks in India. Even during colonial times, they were involved in curing common minor ailments. This is the ironic advice that Rowland Bateman, a nineteenth century pioneering evangelist in North India, gave to missionaries involved in medical care: “Become a quack specialist. I asked a medical friend to put me up to the diagnosis of the commonest eye troubles of these villagers, and their remedies in the early stages, and the result is that I have obtained quite a reputation for the

⁹In the 1950s, the State government introduced an integrated course comprising ayurveda and allopathy. It led to the emergence of a group of doctors who practiced both these systems of medicines. A few who finished the degree are still alive and practice, but this integrated course no longer exists.

¹⁰The term quack is derived from the Dutch/German quacksalver or mercury doctor. It “denoted medical practitioners who operated outside most established medical channels and it implied unqualified and inferior medical practice” (Wanko, 2003, p.106).

number of people whose sight I have saved” (Cox, 2002, p.171). Present-day quackery in Kerala deals with common ailments that are not so complicated, it is therefore relatively easy for quacks to handle many patients every day, from which some can attain a high reputation in a relatively short time.

Worth mentioning here is that even during the pre-independent period quackery had been a major state concern in Kerala. In his inaugural address to the first meeting of the Travancore Medical Council on 12 June 1944, Sir C.P Ramaswamy Iyer, the then Dewan of Travancore, mentioned that one of the intentions behind the setting up of this council was “to prevent charlatanism and fraud of all kinds” among the practitioners of different systems of medicine. In that address he emphasized the importance of ensuring that anyone who practiced a system of medicine must use “the best methods they can within the limits set by that system, and in accordance with the principles and doctrines of that system”. Thus, as explained by the Dewan, the purpose of having a Council was “to ensure that the doctrine which a practitioner wanted to bring into operation was those recognized by a body of experts”.¹¹

The Indian Medical Council Act of 1956 made quackery a non-cognizable offence under the Indian Penal Code. The maximum punishment for a conviction was a fine of Indian Rupees 1000 and one year imprisonment. Most of the time, unregistered practitioners will use forged medical certificates to appear to have the same degree of credibility as others within the medical profession. That is why the police, on the basis of secret information from registered practitioners, will sometimes crosscheck the registration number and other personal details of a probable quack with government records. Sometimes the registration number and accompanying details furnished to the police are either totally fake or belong to someone else. In many cases, five or more years of illegal medical practice may have already been completed before the police learned of that particular case of quackery. I know of one interesting case of a veteran quack, who successfully finished twenty years of medical practice at the time of his arrest. There have

¹¹*The Travancore cochin council of modern medicine.* (nd.). Retrieved on March 3, 2011, from http://www.medicalcouncil.kerala.gov.in/index.php?option=com_content&view=article&id=6:home.

been a number of initiatives by anti-quackery groups in the Indian Medical Association (IMA) and the Ayurveda Medical Association of India to crack down on those ‘doctors’ who indulge in medical practice using fake documents. According to the figures released by IMA in 2010, around 40,000 quacks practiced modern medicine in different parts of Kerala, particularly in village areas.¹²

The forged document is not the only basis of illegality, for I have encountered instances in Keranad where registered practitioners were undertaking medical procedures that they were not legally entitled to undertake. One case involved a registered homeopath, who came from a family of traditional ayurvedic healers but sought to practise allopathy. He would prescribe allopathic drugs along with traditional homeopathic medicines to the same patient, so as to generate quick relief. I heard from a number of people that he had been previously arrested by the police for illegal allopathic practice. As soon as he was finished with these legal formalities, it was said by an old Keranadan that, “he restarted his allopathy-mixed homeo practice with renewed rigour, but with a great deal of precaution”. In Kerala, as in many parts of India, other similar instances of quackery have been often exposed. It is not unusual for government-appointed drug inspectors to inspect and seize allopathic drugs from the clinics of registered homeopathic doctors and qualified ayurveda practitioners. I also encountered instances in which former hospital attendants who had not been formally trained nevertheless felt confident enough to “practice medicine” in the remote villages of Kerala. This often involved treating basic ailments such as colds, headaches, and sprained muscles.

The NRHM period

The pluralistic medical situation in Kerala has undergone rapid and significant improvements since mid 2000s, following the implementation of the National Rural Health Mission (NRHM) – a project of the central government aimed at improving the availability of, and access to, quality health care in India. Considered as India’s most ambitious rural health initiative ever, the project is targeted at poor women and children living in rural areas (Mahal

¹² Deccan Herald. “40,000 quacks in Kerala”, July 17, 2010

and Bhandari, 2010). What makes NRHM different from many earlier health interventions was a more encompassing attempt to manage the patient's environment as the source of their physical illness. The focus on prevention produced what claimed to be a more "synergistic approach" that related "health to determinants of good health viz. segments of nutrition, sanitation, hygiene and safe drinking water" (NRHM 2005-2012 Mission Document¹³). Among other things, the NRHM was committed to revitalizing the five major Indian systems of medicine – ayurveda, yoga, unani, siddha and homeopathy (AYUSH). The funds made available to the Department of Ayush had increased from Rs. 488 crore in 2007-08 to Rs. 888 crore in 2010-2011.¹⁴

NRHM money played a significant role in the development of government-run ayurveda hospitals. Additional buildings were constructed in some hospitals and nearly every hospital witnessed an expansion and improvement of its physical infrastructure. In medium sized towns, there was also the building and/or upgrading of in-patient facilities in state-run ayurveda hospitals. In November 2013, there were 727 ayurveda dispensaries and 115 ayurveda Hospitals in Kerala.¹⁵ Homeopathy also received substantial government support during this period. In addition to the renovation of the existing government homeopathic centers, this period witnessed the opening up of 274 NRHM homeo dispensaries all over Kerala. It is worth noting here the substantial expansion in inpatient facilities at public homeopathic hospitals. The total number of inpatients in the year 2008-2009 was 36785 – a major increase when compared to the 2006-2007 figures of 12212.¹⁶

¹³http://www.nird.org.in/brgf/doc/Rural%20HealthMission_Document.pdf. Retrieved on March 30, 2015.

¹⁴ Statement of the Union Health Minister, *The Hindu*, Jan. 5, 2011

¹⁵ *Department of Indian systems of medicine* (n.d), Retrieved on November 25, 2013 from http://www.old.kerala.gov.in/dept_indiansys_medi/indian_systems_medicine_dept.htm

¹⁶ *Homeopathy department, Government of kerala* (n.d.). Retrieved February 27, 2012 from www.homoeopathy.kerala.gov.in/

The NRHM period transformed homeopathy so it became integral to the state management of social problems through medicalising them. Kerala is the first state in India to start a government funded health program in homeopathy for women. Named as *seethalayam*, it began in 2010-11. The *seethalayam* program sought to empower women and was directed not just at the physical illnesses of women but also their mental and social health. In the project, illness was redefined as the suffering of women in society and this included “the physical and mental torture” that women faced in their domestic and social environment.¹⁷ This domestic torture could be the result of dowry related issues, nuclear family constraint, substance abuse, mental /physical illness, financial burden and self-harm by women including suicidal tendencies related to family problems. The government claimed that “homeopathy can alleviate mental aberrations and suicidal tendencies without any bad effects and financial burden”¹⁸. This project marks not just the use of alternative medicine to medicalise women’s bodies but it is also part of the medicalisation of social problems using alternative health measures.

What should be noted is that the NRHM period witnessed the starting of siddha and unani dispensaries in the public sector. Siddha is a form of traditional medicine that is popular among the Tamil speaking parts of south India, which includes many panchayaths (local community assemblies) in southern Kerala bordering with Tamil Nadu. NRHM funds were used by the public health department to open siddha dispensaries in many panchayaths between the years 2006 and 2012. The unani system of medicine, started off around 980 AD in Persia, came to India through the Arabs and other Muslim traders in the twelfth century (Saad & Said , 2011; Liu, 2011). Those years also saw the opening up of brand-new government unani dispensaries in northern Kerala where there is a substantial Muslim population. As of January 2013, there are 20 unani dispensaries functioning in various districts across the State.

¹⁷ *Seethalayam, Homeopathy Women Healthcare Centre Homeopathy Department, Government of Kerala* (n.d.). Retrieved February 27, 2012 from

<http://www.homoeopathy.kerala.gov.in/index.php/services/seethalayam>

¹⁸ The Hindu, "Seethalayam project for women to be extended". November 13, 2013.



A government unani dispensary started in May 2012

Private unani dispensaries have been functioning in Kerala, especially in the northern districts, for quite a long time. However, now is the first time that unani have become part of the public health system and that government dispensaries have started operating with an official board. The name of the above dispensary – “National Rural Health Mission, Government Unani Dispensary” – is written in black letters against a yellow background. This is the standard colour format for hoardings and billboards that denote government departments and offices. The integration of unani into the public health care system cannot be regarded just as legitimating the state’s authority through using yet another indigenous medical tradition. Rather, it marks the advent of a new form of rationality or reason of the state, which reinforces the state itself. It involves the pragmatic extension of a medical rationality that would enable the state to govern people as individuals “significantly useful” to its ends (Foucault, 1988). The setting up of brand-new types of dispensaries, and the renovation of existing ones, are instrumental investments by the state in the individual for the purpose of creating a new disciplinary society based on the medicalisation of hygiene, nutrition and illnesses.

Hierarchical pluralism

The prevalence of a hierarchical order among medical traditions within the same society has already been explored in medical anthropology. It is argued by critical medical anthropologists that the pluralistic health structure of non-western societies can tend to be hierarchical as it reflects the power relations in larger society¹⁹ (Lee, 1998). The best way to illustrate this hierarchy in Kerala is to note the clear bias in allocating government funds to the three dominant medical systems. The following table shows details of the government funds allotted to the health sector in 2012-2013 (in lakhs)²⁰, with the allopathic sector being in the top two categories, termed the Health Services Department and the Medical Education Department.

Sl. No	Name of Department	Amount Allotted for 2012-13 (in Lakhs)
1.	Health Services Department	20564
2.	Medical Education Department	20220
3.	Ayurveda Department	1665
4.	Ayurveda Medical Education Department	1760
5.	Homeopathy Department	1721
6.	Homeopathy Medical Education Department	1070
	Total	4700

Source: *Finance Department, Government of Kerala*

¹⁹Critical Medical Anthropology emerged as a critique of conventional medical anthropology as having failed to “link local ills to the larger systems of domination that often influence or even generate them” (Farmer, 2010, p. 54). One of the CMA’s basic concerns was the broader political economic context and the relations of power involved in a healing encounter (Foley, 2010). While still upholding the importance of the critique of materialist thinking (for instance, the disease model in biomedicine and the adaptionist premises of the medical ecological theory), the initial proponents of CMA recognize medicine, physicians, and other components of health institutions as representatives of, and reinforcements of larger social, economic, and political systems (Gochman, 1997).

²⁰ A lakh is a numbering unit in India equaling to one hundred thousand.

The above table indicates a clear hierarchy in the allocation of government funds. The amount allotted to the ayurveda and homeopathic sectors is far less when compared to that of allopathy. Such a differentiation in fund allocation is in fact a reflection of the rigidly hierarchical state patronage that exists in the public healthcare system. A further illustration of this is the recent establishment of the first ever medical university of Kerala. According to the 'Kerala University of Health Sciences Act 2010'.²¹ the medical university is established for the purpose of “ensuring proper and systematic instruction, teaching, training and research exclusively in Modern Medicine, Homeopathy and Indian Systems of Medicine including Ayurveda, Siddha, Yoga, Naturopathy, Unani and allied sciences in the State of Kerala and to have uniformity in the various academic programmes in medical and allied subjects in the State”. This university is mandated to affiliate all colleges and institutions imparting professional education in healthcare. What is interesting about this university is the way the key portfolios are distributed among the three systems of medicine. The vice-chancellor, the chief executive of the university, is an allopathic doctor. The assistant to him, known officially as pro-vice chancellor, is a qualified ayurvedic practitioner. When it comes to the registrar, the third most important position in university, the government has appointed a homeopathic doctor.

It should be noted, however, that Kerala’s centralized pluralistic public health system – despite its long history – had limited penetration to the village level until the mid-2000s. For many decades after the formation of Kerala in 1956, the public health system at the village level remained exclusively allopathic in terms of registered practitioners. Unlike states like Tamil Nadu, where the primary health centers offer both indigenous and modern medicine, PHCs in Kerala provided only allopathic care (Varatharajan, Thankappan & Jayapalan, 2004). Until then, most ayurveda hospitals in Kerala were located in towns and cities, and thus villagers had no way but to depend on non-registered practitioners (known as hereditary healers) for ayurvedic treatment. Though ayurveda remained a popular choice among Keralite families, it was only

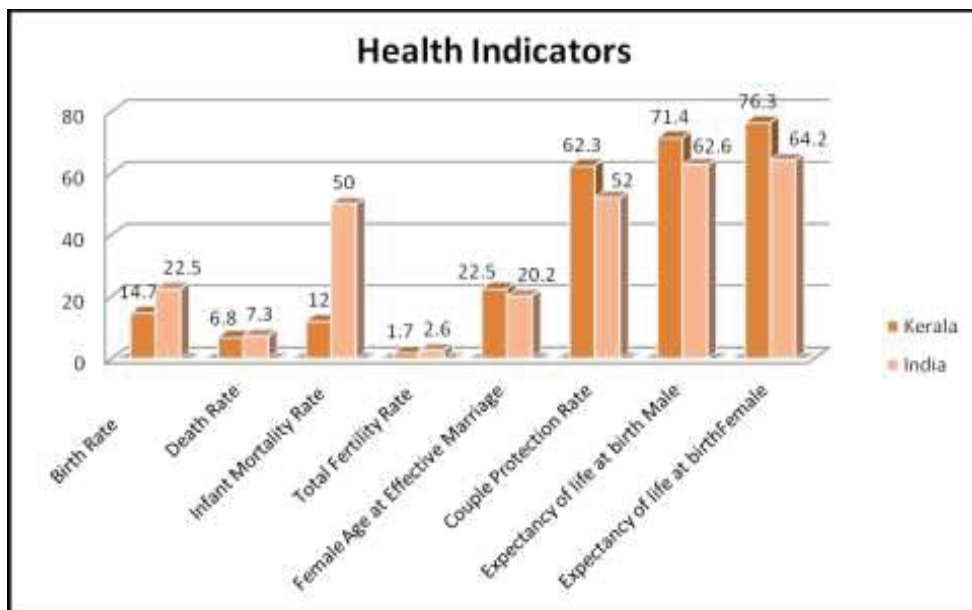
²¹ *The Kerala university of health and allied sciences bill, 2010* (n.d.). Retrieved on June 20, 2012 from <http://www.niyamasabha.org/bills/12kla/healthuty.pdf>

after 2006 that government ayurveda clinics became more widespread all across Kerala villages. The same situation has prevailed in the case of homeo clinics as well. It was only after the implementation of the National Rural Health Mission in Kerala that the extensive level penetration of the homeopathy really began.

A “model” and its crisis

The improved health status of Keralites compared to those living in the rest of India prompted many analysts to talk about a “Kerala Model of Health,” characterized by good health at low cost (Ekbal, 2006; Kutty, 2012)²². Those who worked on Kerala’s distinctiveness, as I will elaborate soon, gave predominant emphasis to the public provisioning and high utilization of healthcare services. The outreach health programs and ready access to government hospitals/clinics, especially at the primary level, are understood to be the main reasons behind Kerala’s high public health achievements (Sadandan 1992; Ramachandran, 2000). What made Keralites’ healthcare doubly interesting was the fact that morbidity rates remained high, regardless of having good health indicators. Ever since the 1980s, it has been noted by various scholars that Kerala’s performance in the fields of literacy and life expectancy don’t necessarily result in a low morbidity situation. The rates of reported illness in Kerala were far higher than comparable figures in many other Indian states (Sen, 1995). The average rate of morbidity in Kerala is 25.1 percent while the all-India average stands at 9.1 percent (Kurup, 2013). Therefore it was understood that Kerala demonstrates a peculiar situation of "low mortality, high morbidity syndrome" (Panikar & Soman, 1985). The following bar graph illustrates the latest health indicators of Kerala, in comparison with the general Indian situation.

²² It should be added here that “good health at low cost” was the theme used by the Rockefeller Foundation during the 1970s to examine the poor countries that had achieved good health by focusing on social justice rather than economic growth. The report of the Foundation’s research sought an explanation for why only certain developing countries managed to attain better health outcomes.



Source: National Rural Health Mission, State Programme implementation Plan for Kerala (2012-13)²³

Ever since the 1990s, there have been serious concerns about the sustainability of Kerala's healthcare model. Studies have shown that the fiscal crisis of the state government would eventually lead to an erosion of existing public healthcare services (Varatharajan, 1999; George, 1999). The fact that a high percent of the population has started spending a substantial portion of their own monthly income on private healthcare has emerged as a major concern. Research on household income and expenditure has shown an enormous increase in healthcare costs during the 1990s. A study by Kunhikannan and Aravindan (1996) showed a two-fold increase in per capita medical expenditure between 1991 and 1994 compared to general consumption expenditure. The same authors published another paper (Kunhikannan & Aravindan, 2000), based on a survey of 5000 individuals all around Kerala, showing a 517 percent increase in per capita medical expenditure during the 1987-1996 period. Five years later, George (2005) demonstrated that the monthly per capita expenditure on both inpatient and

²³http://pipnrhm-mohfw.nic.in/PIP2012-13_files/Large/Kerala/PIP%202012-13%20KERALA.pdf. Retrieved on June 12, 2011.

outpatient care in Kerala remained the highest in India. Another study that looked at the consumption of inpatient services from private hospitals between 1986 and 2004 (Dilip, 2010) confirmed the aforesaid findings, and further demonstrated that it is the poor who spend proportionately more of their household resources on private healthcare than the rich. It is often said by many of my informants that the decline in the quality of services offered in public hospitals has made private medical services more popular.

The fiscal crisis has continued to have an impact throughout the 2000s, causing the state government to apply brakes on its social sector spending. The relative decline in public health institutions and services is understood to emanate from the reduced budgetary allocation for the health sector. Government expenditure on health (as a percentage of total government expenditure) has fallen by almost half, from 9.9% in 1986-87 to 4.7% by 2004-05 (Dilip, 2010). In the same time span, private investment increased by 40 percent.²⁴ During the years between 1986 and 1996, the number of hospital beds in the private sector increased from 49000 to 67500. Such a forty percent jump occurred at a time when hospital beds in the public sector increased by only 5.5 percent (Thankappan, 2001). Between 1987 and 2004, thanks to increased reliance on private healthcare services, the annual per capita healthcare expenditure was raised from 89 to 1836 rupees (Aravindan & Menon, 2010). In the wake of a booming yet expensive private sector and a related shrinking of public healthcare, it has been argued that Keralites no longer have “good health at low cost”.

An instrumental-rational order

What underpins most literature on healthcare in Kerala, including some by anthropologists, is a sort of rational reductionism premised upon linearity and predictability. It often seems to assume the presence of a group of health-seeking individuals exercising their freedom of choice within a framework of better access and better knowledge of medical facilities. These presuppositions of human behavior can be treated as a ‘discursive formation’ (Foucault, 2002), that is, a form of knowledge created within a social-cultural field, which

²⁴ Leng, Ning (n.d) *Kerala model revisited – Dual development and party competition*. Retrieved on May 30, 2015 from http://idc-america.org/wp-content/uploads/2012/05/Public_2_Leng.pdf

determines what can and should be said about conditions, behaviors and institutions, in this case regarding health. For instance, themes like health awareness, access to medical care and healthcare utilization are integral to much of the healthcare literature on Kerala. It is argued that an educated populace has a higher degree of health awareness and this has made possible a near universal utilization of healthcare facilities (Panikar, 1979; Nag, 1989). As Amartya Sen (1995) puts it: “In Kerala there is a much greater awareness of possible illnesses and of the need to seek medical remedies and to undertake preventive measures. These very ideas and actions that help to reduce actual morbidity and mortality in Kerala also heighten the awareness of ailments” (p.405). He contrasted this with Uttar Pradesh, a north Indian state with a relatively illiterate population and undersupplied public health facilities.

While analyzing subordination, poverty and the state in modern India, Mendelsohn and Vicziany (1998) give an example of how better educated women in Kerala have reduced infant mortality through better health practices. The example they offer concerns diarrhea. In most Indian states, the widespread practice has been to treat diarrhea in babies and small children by radically reducing the consumption of liquids – something that can lead to dehydration and even death. With education, according to their study, Kerala women have learnt the importance of keeping liquids up during bouts of diarrhea. The infant mortality rate (the number of infant deaths per 1000 live births) in Kerala is substantially lower than other parts of India. In 2011, the figures for Kerala and India are 12 and 50 respectively. It is worth quoting here Arnold Pacey (1983), who investigated how Kerala’s literate mothers make better use of the relatively better-staffed network of primary healthcare centers: “The mother can read her baby’s health record when it is filled in at the clinic; she can read family planning posters and the instructions on medicine bottles” (p.73).

The extensive literature on the ‘voluntary’ acceptance of contraception in Kerala is another good example, for Kerala has been found to have a high couple protection rate i.e. the percentage of couples effectively protected by contraception in a given year. Even during the 1950s Kerala’s fertility was lower than the all-India average (Rajan, 2005). The non-coercive implementation of birth control is understood to be the result of high female literacy and the spreading out of

healthcare services (Devika & Mukherjee, 2007). Interestingly, Kerala's pluralistic medical situation has also become subject to a rationalistic interpretation of human action. Many researchers presuppose that Keralites act purposefully and consistently, so as to attain their healthcare objectives. It is assumed that, even among the lower strata women, there is a possibility of informed choice between various therapeutic possibilities. The following excerpt is taken from Leela Gulati's book *Profiles of Females in Poverty: A Study of Five Poor Working Women in Kerala* (1981).

“Jayamma's flu showed no signs of let up. So she went to the nearby Public Hospital. She had to take her ration card for identification and wait in a long queue. They finally examined her and gave her an injection and a prescription for medicines to buy. Jayamma, was, however, not happy with the way the doctor disposed of her. She was sore also at the long time it took the doctor to see her. So she did not buy the medicines and refused to go for further injections. Instead, she went to a nearby clinic run by a church school. She felt she got better attention there, but it did not really put her back on her feet. Finally, she went to the Government Ayurvedic clinic and only then did she start feeling better” (p.54).

Jayamma, like the other four working women in this study, belonged to a lower caste community. Despite her lower caste position, and thus her restricted opportunities in everyday life,²⁵ she was nevertheless presented as a utility-maximizing individual who sought to test and maximize her healthcare objectives. Noted anthropologist Marvin Harris, who is famous for his materialist approaches to Indian religious beliefs, wrote the forward to Gulati's book, and highlighted what he saw as the deep instrumentalism in the lives of the five poor Kerala women. He described those women as “remarkably free of self-pity, however much they are entitled to it, and that they are determined to cope with their situation not with fatalistic resignation, but literally with every calorie they can get from the food they eat” (Harris, 1981, pp. vii-viii).

²⁵ Caste is not seriously understood as an underpinning social variable in the Kerala Model discourses. However, as rightly pointed out by Malayali dalit intellectuals, such as Sunny Kapikkad, Kerala remains a caste-based society. It is a fact that blatant and violent forms of intolerance such as physical violence towards persons of lower castes or untouchables and the purity-pollution practices are much less of a problem in Kerala. Nonetheless, caste still constitutes the underlying basis of social institutions such as kinship, economy, politics and religion, even if it does not always seem to operate at the forefront. It is, therefore, quite obvious that the life possibilities of a lower caste woman in Kerala like Jayamma would be comparably limited.

Anthropologists who have worked at the village-level have also described healthcare as a “popular demand that the government was compelled to meet”. (Franke & Chasin, 1994, p. 45). In her village-level impact study of a development project for the International Labor Organization (1984), Leela Gulati wrote about the starting up of medical clinics in response to popular demand that was prevalent as early 1957. British anthropologist Kathleen Gough narrated an event in 1962 in which a furious mob dragged a doctor from a movie theater to a nearby hospital to attend a pregnant woman who was in severe pain (Gough, as cited in Chasin & Franke, 1994). Joan P. Mencher, in one of her articles published in the Economic and Political Weekly (1980), writes: “If a PHC (Primary Health Centre) was unmanned for a few days, there would be a massive demonstration at the nearest collectorate [regional government office] led by local leftists, who would demand to be given what they knew they were entitled to” (pp. 1781-1802). While visiting the neighboring Tamil Nadu, Mencher observed that nearly half of the PHCs were without doctors. They remained continuously absent from hospital duty, either for official training purposes or for personal reasons. In contrast, for Kerala, no PHC could be left unmanned or managed in such an ‘irresponsible’ manner. To quote Franke and Chasin (1994), “Kerala village governments, trade unions, and political parties often submit written demands to higher officials for improved healthcare facilities. Such demands are widely circulated in the local press. If they are not met, unions may strike or other public agitations may occur. In some cases, the officials have been *gheraoed* or surrounded by protesters who do not allow them to leave their office until demands have been met” (pp.45-46).

It is often portrayed in the Kerala Model literature that Kerala has an ‘exceptional’ population who are educated enough to act rationally and so strive to create and sustain an enlightened social order. What makes the afore-discussed approach to Kerala’s healthcare domain problematical is the presupposition that a sick person in Kerala is an ‘instrumentally rational actor’, behaving in a maximizing, goal-driven manner. I would like to use here Max Weber’s (2013) notion of modernity as involving a process of rationalization where all areas of social life become increasingly subjected to a means–ends calculus of instrumental efficiency. Weber argues that “social action can be determined in an instrumental (or goal) rational (*zweckrational*) way: through expectations of the behaviors of objects in the external world, and of other human beings, and in the use of these expectations as ‘conditions’ or as ‘means’ for the attainment of actor’s own rationally pursued and calculated ends” (Goldman, 2005, p. 60). In

such a situation, rationality is a matter of choosing an attainable goal and devising the most efficient means for achieving the same.

The instrumentalist-rational interpretation of Kerala's healthcare domain has been in tune with the way the so-called outstanding development outcomes are analyzed and accounted for. The Kerala Model of Development is understood as "the *post facto* generalisation of a development experience historically evolved but promoted by public action (which inter alia includes socio-religious reform movements, a wide and active press, adversarial politics etc.) and sustained by social demands" (Ommen, 1999, p.xvi). There is a celebration of modernity as embodying the growth and diffusion of reason, and this in turn has created a discourse on Kerala's progressivism. For instance, Amartya Sen, the Nobel prize winning economist who has done much to promote this progressive example²⁶, describes Kerala as the "most socially advanced state in India" (Sen 1999, p.199). This sub nationalist discourse of an enlightened Kerala contains within itself a linear, evolutionist historical vision.

The discourse of an "enlightened Kerala"

For Foucault (2002), discourses are "practices that systematically form the objects of which they speak" (p.54). A discourse constructs the topic, for "it governs the way that a topic can be meaningfully talked about and reasoned about" (Hall, 1997, p.44). It provides a shared language for approaching a topic through common concepts, assumptions and methods. Discourses systematize and frame the way people understand the specific areas of their lives (Mac Naughton, 2005) and what's more they frame and systematize how certain groups, especially professional groups, understand the specific lives of others. Discourses are also ways of observing and studying others in ways that can often impute to them certain beliefs, values and motivations. This can be seen in Foucault when he discusses how the discourse of sexuality provided a way of talking about and governing forms of sexual behavior, creating and offering models of subjectivity and personhood (Hodges, 2011).

²⁶ Kerala is used as an exemplary example in the academic and popular writings of Jean Dreze and Amartya Sen. It should, however, be noted that they have never used the term Kerala Model and are unequivocally against attributing the model rhetoric to their analysis. They argue: "there is much to learn from scrutinizing the experience of Kerala – and of the other high-performing states – but there is little evidence for seeing Kerala as a model to be mechanically emulated" (Dreze & Sen, 2013, p.346).

The discourse of “enlightened Kerala” constitutes the notion of a progressive, advanced society which will use reason, democracy, and modernity to improve the mental and material well-being of its citizens. This discourse has been popularized by left wing parties since the 1970s and is now an integral part of government’s reports, the popular imagination, and academic literature on Kerala. Many times during my fieldwork period I heard Keralites taking pride in calling their state "*prabuddha Keralam*" or enlightened Kerala: “How can this happen in our enlightened Kerala?” –Keralites frequently ask this question when they come across scandalous examples of so-called social evils like brutal forms of casteism and sexual assault on women and children. I sensed a similar undertone of self-pride while reading daily newspapers, watching news channels, and listening to political speeches. The description of Keralites as an enlightened populace is not uncommon in government reports like those of the Planning Commission. A statement from the official website of the Chief Minister of Kerala, can illustrate how this discourse is integral to the government’s vision of a democratic citizenry. The report writes: “Suggestions and ideas from enlightened Keralites sought for envisaging comprehensive development plan of Kerala-VISION 2030”.²⁷ The following poster placed on the roadside, at Kozhikode city in Northern Kerala, depicts and labels a young politician as “the popular face of enlightened Kerala”.



²⁷ Chief Minister of Kerala, Oommen Chandy Official Website (n.d.). Retrieved January 30, 2013, from <http://www.keralacm.gov.in/index.php/component/content/article/51-vision/90-vision-2030-idea-box>.

As I will elaborate shortly, Kerala is posited as an ‘exceptional’ society that has evolved as the result of prudent state development interventions and social reform processes dating back to the 19th century. Politicians and government officials are, therefore, expected to be the embodiment and personification of a wider democratic polity of enlightened citizens. This discourse of an enlightened populace articulates a common language that traces the historical background of Kerala’s present-day achievements in key quality of life indicators. The progressive policies of ‘enlightened’ princely governments of old Kerala is identified as the linchpin of such processes (Rammohan, 2010). Such a discourse constitutes the dominant public way for viewing and talking about the past lives of Keralites. The health and education sectors are used to demonstrate the major changes that took place during the pre-independence period. In the next few paragraphs, I will present those major changes and how they have given rise to a certain dominant way of characterizing Kerala history and identity.

Starting in the early 1800s, unlike many of the other Indian princely states, the native kingdoms of Kerala started pursuing welfare interventions in health and education. In *Discovery of India* (2004), Jawaharlal Nehru refers to the fact that popular education in Travancore²⁸ started in 1801, whilst in England it started only in 1870. In the year 1817, Rani Gouri Parvathi Bai, the young queen of Travancore, issued instructions that: “the state should defray the entire cost of education of its people in order that there might be no backwardness in the spread of enlightenment among them, that by diffusion of education they might be better subjects and public servants and that the reputation of the State might be advanced thereby” (Sen, 2007, p. 505). Even during the 1860s, the Travancore government designated more than 1% of its total expenditure to the health sector. This proportion had risen to 2 percent by the close of the nineteenth century (Health Policy Kerala, 2013).²⁹

²⁸ Under colonial rule, Kerala was comprised of three separate provinces – Malabar, Cochin and Travancore. Malabar became part of the Madras Presidency in British India in 1792 as the largest district of the presidency. The Kingdoms of Travancore and Cochin Kingdoms became indirectly part of the British India through treaties of subsidiary alliance (Desai, 2005). They were joined by Malabar, with all three forming the new state of Kerala on November 1, 1956, after the post-independent Indian government reorganized the states on a linguistic basis.

²⁹ <http://dhs.kerala.gov.in/docs/draftpolicy.pdf>. Retrieved on November 27, 2014.

Both Travancore and Cochin kingdoms invested large sums in school buildings and teachers salaries. Such an investment enabled these kingdoms to head the list of the most literate provinces in British India. During the early nineteenth century, Catholic missionaries from Portugal and Anglican missionaries from Britain built a number of schools (Weiner, 1991). Missionary schools were particularly critical in Malabar, where the proportion of government schools was lower than Travancore and Cochin. During the 1930s, according to Kooiman (1995), “remarkable progress was made and a solid groundwork was laid on which, after independence, total literacy could be achieved”(p.153). Those were also the years when many important developments took place in the health sector. In 1865, whilst inaugurating a General Hospital in Thiruvananthapuram, the Maharajah of Travancore declared his intention to provide high quality health care to his subjects (Taylor-Ide & Taylor, 2002). In the royal proclamation issued in 1879, compulsory vaccination was made mandatory for public servants, prisoners and students³⁰. Instructions were given to all heads of public service departments to ensure that those under their authority were properly vaccinated (Kutty, 2000). In 1894, the Travancore government established a special sanitary department (Singh, 2010; Aiya, 2013). It is interesting to add that the progressive royal family in Travancore vaccinated themselves in public for small pox at a time when the upper castes of Malabar refused to be vaccinated by the lower-caste and shunned hospitals (Pillai, 1940).

Such interventions were further consolidated in the 1920s, when the local rulers decided to go for American assistance to improve existing health care infrastructure. Following a request by the Maharajah of Travancore, the Rockefeller foundation sent W.P Jacocks to improve the health care situation in Travancore and Cochin. The Maharajah asked for American assistance to organize the public health department on ‘modern lines’ (Kabir, 2003; Menon, 2002). Jacocks initiated a healthcare system based on community-based Primary Health Centers (PHCs), which even today forms the linchpin of Kerala’s public health services. These PHCs were rapidly established through Travancore and Cochin so as to provide “accessible care to villagers while collecting vital statistics, doing health surveys, organizing communicable disease control,

³⁰ *Health system under the crowns* (n.d). Retrieved on 28 April 2014 from http://shodhganga.inflibnet.ac.in/bitstream/10603/14786/10/10_%20chapter%203.pdf

training public health nurses and child health workers, improving sanitation, and emphasizing community action linked to the identification of specific behavior changes necessary for improved health” (Taylor-Ide & Taylor, 2002, p.108). In 1925, when the number of health care institutions per square mile in British India was 3.62, the equivalent figure for Travancore was 10.23. Similarly, the number of beds per one hundred thousand in British India and Travancore was 18.55 and 37.93 respectively.³¹

The educational and health interventions were understood to have a “liberatory effect” on the people who found themselves immersed in a rigid and obscurantist caste structure and relations of subordination centering on it. The area now known as Kerala was then characterized by some of the most severe rules of caste segregation in all of India. Argyle (1997) described the distance rules descending down from the Brahmin or priestly class to the untouchables: “Brahmins must keep 7 feet from the next caste; the next pairs of castes must keep 25 and 32 feet apart, and the fourth caste must keep 64 feet from the untouchables” (p.28). Hindu reformer Swami Vivekananda described Kerala as ‘a mad-house of caste’ (Tickell, 2007); he was referring especially to the strict regulations concerning physical distance between different castes. The public provision of health and educational facilities, therefore, lay at the center of the enlightenment project in Kerala. Even in Travancore, where there had been a series of anti-caste movements since the late 1800s, free access to government hospitals was limited to only high-caste Hindus and non-Hindus until about the 1920s. As stated in the Kerala Development Report (2008), government doctors – who mostly belonged to the upper castes – raised their voice in favor of providing healthcare facilities to the lower castes.

The consistent activities of Leftist movements (Tornquist, 1995), both through popular actions and the sponsoring of state interventions, proved critical to expanding the state medical system. Kerala communists, especially those in Malabar, had always been at the forefront of initiating relief projects following epidemic outbreaks (Issac & Franke, 2002). As told by

³¹ *Health Care Sector in Kerala: Growth, Structure and Spatial and Sectoral Distribution* (n.d) Retrieved on March 11, 2015 from http://shodhganga.inflibnet.ac.in/bitstream/10603/892/11/11_chapter%203.pdf

Payyaratta Raman,³² one of Kerala's early communist leaders and a former panchayat president in North Malabar, it was the Red Guards – the paramilitary youth wing of the communist party – who provided drugs for cholera treatment in their villages. They transported medicines from Mangalore to the nearest railway station, and carried it atop their heads to the cholera-affected areas. Red Guards formed anti-cholera teams during the 1940s and conducted household visits to give instructions on cleanliness and disease prevention. After winning the Kerala state legislative assembly elections in 1958, the communist government implemented universal immunization for children and opened hospitals in the Malabar region (Desai, 2007).

The development literature on Kerala documents and praises the many welfare interventions and reform social movements since the 1900s which have shaped an “enlightened society” upon which post-1956 Kerala is based. Much of the egalitarian policies pursued by the democratically elected governments, particularly the land reform acts framed by the communist ministries between 1957 and 1959, were conceived as part of the goal of establishing a new progressive social order. The fact that health and education spending continue to take a substantial portion of the annual state budget is seen as a continuation of this “enlightened” history. In this thesis, I wish to explore the competing rationalities concerning healthcare in Kerala and how these cannot be reduced to an instrumental-rational aetiology. I intend to show that the so-called historically evolved, rationalistic health-seeking behavior coexists and constantly interacts with other seemingly ‘irrational’ values, beliefs and motives. In this regard, I will discuss in detail “hospital attacks”, which according to the Indian Medical Association is a “black mark on the civilized society of a literate state like Kerala”.³³The very fact that only the allopathic hospitals are attacked bears ample testimony to the rational motivation – other than the health-seeking behavior – behind the hospital attacks in Kerala.

³² Interview conducted by Vadakkiniyil Dinesan and MT Narayanan as part of their research project on the evolution of public sphere in Malabar on March 22, 2002.

³³ *Indian Medical Association, Kerala State Branch Official Website*. (n.d.). Retrieved March 2, 2013, from <http://www.imakerala.net/>

Hospital attacks

“Attacks on hospitals by unruly mobs are on the increase now-a-days in Kerala. Hospitals were kept out of purview of public outrage since time immemorial. Hospitals were never attacked even during fierce war. Relief organizations like Red Cross are permitted to work even in war front” (Dr. Varghese Thomas, Editor-in-Chief, Calicut Medical Journal).

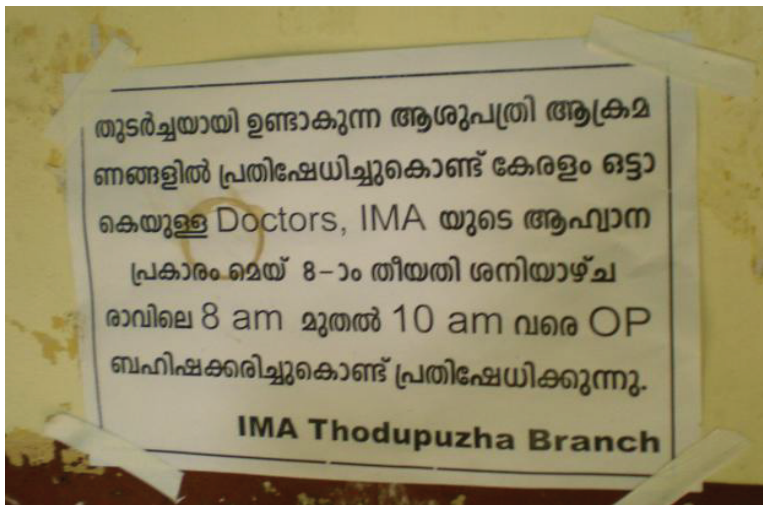
“Hospital Attacks” refers to a situation in which an angry crowd attacks hospitals/clinics, destroying the infrastructure and injuring doctors and other medical personnel. Both government-run and privately managed hospitals are vulnerable to attacks. Attacks occur in response to a wide array of situations – ranging from a patient’s death to dissatisfaction with the treatment outcome. What happens in most instances is that neighbors, friends, and relatives of the patient storm into the hospital alleging serious negligence. It should be added here that hospitals at all levels in Kerala, starting from the village-level primary healthcare clinics to the super specialty academic hospitals in the cities, have been attacked and sometimes several times. It is so common a situation that police have become accustomed to rushing to the hospital to bring the situation back to normal.

To blame the treating doctor and the hospital for subsequent complications and deaths is now quite common. According to a statement issued by the Kerala chapter of the Indian Medical Association (IMA) on June 2, 2012, there exists “an atmosphere in which doctors could not work without fear”.³⁴ IMA submitted a memorandum³⁵ to the Chief Minister of Kerala demanding a special law for the protection of medical profession on the grounds that hospitals, doctors and other staff (paramedical/non-medical) are attacked on what seems like a daily basis. There have been reported instances when seriously ill patients wearing various lifesaving gadgets connected to them and pregnant women in labour have had to run for safety during hospital attacks. The memorandum also claims that “doctors are apprehensive of an imminent assault while dealing with serious patients and hence become defensive”. The doctors’ memorandum asked the state to declare health care institutions a special zone that bans demonstrations and acts of violence.

³⁴ The Hindu. “IMA seeks justice for assaulted doctor”. 3 June 2012

³⁵ IMA KSB/SS/253/2007-08, Dated 22.04.08, Thiruvananthapuram.

Since 2005, there have been some government attempts to increase the police presence in hospital premises. For instance, a 24-hour police aid post, with two policemen, was put in place at the casualty wing of the Government Medical College, Thiruvananthapuram.³⁶ This was after several hospital attacks led to doctors' strikes which demanded strong government action. Hospital management associations in Kerala also demand stern action to put down the increasing number of attacks on hospitals and doctors on duty.³⁷ The later years have seen strikes by doctors demanding adequate protection at the workplace and a special law to punish any attack against doctors and hospitals.³⁸ Nearly 15,000 junior doctors from all over Kerala observed 'Black Day' on 4 June 2012 when a House Surgeon was assaulted.³⁹ Usually, such strikes paralyze the entire health care system; they disrupt all services in the hospital, including emergency services, and often for several hours.



A notice saying doctors boycotting OP clinics in protest against frequent hospital attacks

³⁶ The Hindu. "Doctor attacked, medicos go on strike". 7 February 2008.

³⁷ The Hindu. "Action sought against 'attacks' on hospitals". 8 December 2008.

³⁸ The Hindu. "IMA call to boycott work", 4 February 2009

³⁹ Madhyamam. "15,000 junior doctors protest attack on colleague". 5 June 2012

In July 2012, the state government, due to pressure from doctors' unions and hospital management associations,⁴⁰ framed The Kerala Health Service Persons and Healthcare Services Institutions (Prevention of Violence and Damage to Property) Act 2012. The Bill, which replaced an earlier ordinance that was already in force, emerged after a string of incidents involving attacks on hospitals by people angered by real or perceived negligence in attending to patients. This Act threatens to punish any attack against a duty bound doctor, hospital or its staff with imprisonment for up to three years and a fine of Rupees 50,000. The act also contains clauses for initiating criminal proceedings against any doctor in the case of medical negligence.⁴¹ A major aspect of the act is that "any offence committed under the section shall be cognizable and non-bailable." However, the government was also accused of soft-pedaling on the issue of controlling mob attacks on doctors and hospitals under the newly enacted Act, and this provoked fresh protests by the Kerala Government Medical Officers' Association. They alleged that, in certain districts, the police did not charge those who had attacked doctors and hospitals.⁴² Indeed, the Opposition alleged that the provisions of the Bill were one-sided and wholly for the purpose of defending the interests of the hospitals, medical staff and health clinics.

A multifaceted violent act

Some hospital attacks in Kerala are spontaneous, but many are well-calculated or planned. The disturbance and confrontations will begin immediately after the death of a loved one, which mostly close relatives cannot bear. The hospitals are blamed for providing inadequate and incompetent care and the relatives of the patient will often feel that the person should not have died. They might say that the illness was not serious and it was the medical care that they received that killed them. Such accusations of negligence are almost a form of sorcery accusation against the state and its officials or against professionals licensed by the state and protected by it. Often the attack involves not just close relatives but also friends and neighbors who are mostly under the influence of alcohol. Here alcohol is used to mobilize courage and to excuse the

⁴⁰ *Kerala Gazette* (n.d), Retrieved on March 22, 2014 from

http://www.egazette.kerala.gov.in/pdf/2012/30/Part_1/health_safety_workers_20.pdf

⁴¹ The Times of India, 20 July, 2012

⁴² The Hindu, 9 November, 2012.

violent actions as having occurred under exceptional circumstances when the person was not fully in control of themselves.

Sometimes unruly mobs have attacked hospitals one or two days after the death of a patient. Such mobs usually consist of relatives, friends, neighbors and residents of the area where the dead person belonged. This clearly means that certain violent incidents have arisen out of a predetermined and well calculated plan to attack the hospital. On a large number of occasions, attackers have injured the hospital staff on duty. What needs to be stressed is that it is not just the clinical personnel who get attacked. The mob will not spare non-clinical hospital staff like the security guards and receptionists. They will normally break the glass panes of the reception counter and cause damage to the casualty wing and the pharmacy. Other acts of violence may involve breaking the windshield of ambulances parked on the hospital premises. The following appraisal is based on newspaper reports of hospital attacks.

Many times clashes emanate when the patient or those who accompany him/her to the hospital try to intervene in the clinical procedures. A hospital was attacked by a group of people at the Cheruvadi village in Kozhikode district when the nurse declined to give a Tetanus Toxoid injection without the doctor's permission. The doctor's kidney was injured during the attack.⁴³ All services at the Women and Children Hospital, Thiruvananthapuram, were interrupted on May 05, 2010 when a visitor accompanying an outpatient attacked the security guard. The event unfolded in the following way: A patient, escorted by her mother and a male companion, had come to the clinic. The security guard prevented the male companion entering the hospital premises, considering the crush inside. The security guard was attacked following a series of arguments with the patient's relatives. The local police rushed to the clinic to handle the violent situation.⁴⁴ The attack happened only a few days after a similar incident occurred at the Thiruvananthapuram Medical College, prompting the junior doctors to declare a three-day strike demanding a safe work environment.⁴⁵ On January 6 2012, the close relatives of a patient

⁴³ The Hindu "Attack on doctor: IMA demand to nab culprits". 3 October, 2004.

⁴⁴ The New Indian Express. "Security staff attacked at Thycaud hospital". 6 May 2010.

⁴⁵ The Hindu. Violence at Thycaud hospital. 6 May ,2010.

assaulted a nurse at the Kozhikode Medical College injuring her hand after complaining about inappropriate clinical management. The attackers damaged the hospital files and during this time the patient's health situation worsened, resulting in his death. Following the attack, the nurses on duty went on a lightning strike.⁴⁶

In certain cases, the alleged failure of hospital authorities to promptly offer intensive care can trigger an attack. A news report concerning the death of a patient at the Thiruvananthapuram Medical College on Sept. 2, 2011 provides an example: “The relatives said that the patient died because intensive care treatment was denied to the patient. According to the doctor’s version, the patient was given treatment in a hospital ward as the ICU room was fully occupied. The patient's condition suddenly worsened and the doctors advised the relatives to shift the patient to another hospital. But all of a sudden the patient developed complications and was taken to the ICU special room where in the course of treatment the patient died. Following the death of the patient, the relatives began a heated argument with the doctors and attacked them”.⁴⁷

In some cases, attacks are likely to target the particular doctor or nurse who attended the patient. Thus, a female doctor was critically wounded at Thrissur on 1st June 2012 when she was stabbed by a knife-wielding man in the hospital corridor. Following the attack, she was hospitalized with serious injuries to the neck and face. The police arrested the 38-year culprit shortly after he committed the crime. According to the police, the culprit was not satisfied with the treatment that the doctor had given him.⁴⁸ Referring the patient to a specialist doctor can also create tensions because there is suspicion of complicity between the professions, of the referral being unnecessary and a means of lining each other’s pockets. On Dec. 5, 2008, certain political activists attacked the owner of a private hospital in Palakkad after he suggested seeking specialized advice from a neurosurgeon for a head injury.⁴⁹

⁴⁶ Mathrubhoomi. “Flash strike at Kozhikode medical college, nurse attacked by patient's relatives”. 06 January 2012

⁴⁷ Mathrubhoomi. “Strike by Tvm Medical College doctors”. 3 September 2011.

⁴⁸ NDTV. “Dissatisfied with treatment, man attacks his doctor”. 1 June 2012

⁴⁹ The Hindu. Action sought against ‘attacks’ on hospitals. 8 December 2008.

Some of the hospital attacks in Kerala are related to alcohol use. This is so in the case of an accident victim who was brought to Thiruvananthapuram Medical College around mid-night with head injuries. “The doctors alleged that the patient was drunk and that he verbally abused and spat on a woman duty doctor while she was trying to suture his wound. The doctors claimed that they had to physically restrain the patient but the patient's relatives misconstrued their actions as violence against the patient. They created a ruckus in the casualty, abusing the doctors”,⁵⁰ to quote from the newspaper report. Privacy issues are also becoming a trigger for violence. For instance, a medical center at Ernakulum was attacked on 20 June 2011 after a patient saw a surveillance camera in the X-ray room. Though the hospital authorities had clarified that such cameras do not infringe on patients' privacy, the following day witnessed protest marches to the medical center by the youth wing of the major political parties in Kerala.⁵¹

The fact that Kerala has the highest density of public and private medical facilities among the major states in India (Levesque et al., 2006) is important when it comes to hospital attacks. Thanks to the increased number of hospitals in a given area, the relatives of a patient always have the possibility of moving the patient from one hospital to another. This was the case when the residents of three villages, after alleging the negligence of the hospital staff, stormed the Medical College Hospital at Chalakka. It all started with an accident involving a twenty-five year old man whose motor bike collided with a tipper lorry. He was brought to the nearest Medical College Hospital, where the doctors identified a fracture in his leg. However, his situation worsened afterwards, forcing the relatives to take him to a super specialty hospital at Kochi. The patient died soon after he was brought to the hospital in Kochi. Following his death, an angry crowd attacked the Medical College destroying an ambulance van, a private car and window panes. The attackers injured an X-ray technician and a security guard, before the police rushed to the scene.⁵²

⁵⁰ The Hindu. “Junior doctors at MCH strike work”. 24 April 2010.

⁵¹ The Hindu. “Attack on hospital condemned”, 26 June 2011.

⁵² The New Indian Express. “Mishap victim dies, mob attacks Hospital”. 2 January 2012.

Death during or within a short period after surgery can provoke hospital attacks. The surgery- related death of a patient triggered a hospital attack in Wadakkanchery on 24 September 2011. Relatives of the deceased attributed the death to inattentiveness at the hospital's surgical unit. The police later filed a case for medical negligence against the doctors who performed the surgery.⁵³ In another case, the neighbors and relatives of a woman who died shortly after delivering a child attacked a private hospital in Payyannur. The attackers smashed the hospital's windowpanes and argued with the police, notwithstanding the fact that hospital authorities explained the reasons behind her death.⁵⁴ Hospital attacks can also occur at night, such as the attack on Thaliparamapa Cooperative hospital on August 3, 2012. According to the Police, "a gang of ten individuals, who had covered their faces with masks, jumped the compound walls in the early morning and ransacked and pelted stones, damaging more than 50 window panes, and the frame and glass of an entry door. They also damaged about ten cars which were parked inside the hospital compound".⁵⁵ Another night attack occurred on March 21 2009, involving a group of four people who attacked a super specialty hospital and maternity home at Thiruvananthapuram City at around 1:30 am.

Deaths from fever complications have also led to hospital attacks. On 3 January 2007, a 12-member gang attacked a doctor inside his private clinic at Thiruvananthapuram. This followed the death of an 18-year old girl who died of intra-cerebral hemorrhage, an advanced complication of dengue fever. She had been initially treated at the attacked clinic; however, after assessing her condition, the doctor referred the patient to a super-specialty hospital for further treatment. Nonetheless, relatives of the deceased stormed into the clinic and attacked the doctor, saying that it was his wrong diagnosis that resulted in the death. The attackers terrorized the patients and chased them away, damaged diagnostic equipment, and smashed medicine bottles.⁵⁶ Another attack in Cheruvathoor on May 22, 2008 happened after the death of a patient brought to a private hospital with high fever. The death led to relatives and other members of the public

⁵³ The Hindu. "Mob attacks hospital". 25 September 2011

⁵⁴ The Hindu . Attack on private hospital following death of patient. 17 November 2005.

⁵⁵ Asianetindia.com. "IUML activists attack hospital". 03 August 2012.

⁵⁶ The Hindu. "Doctor attacked, clinic damaged". 04 January 2007.

alleging hospital negligence. The panchayat authorities and the police intervened to disperse the mob⁵⁷.

Beyond health-seeking behavior

The difficulty in interpreting the action of the attackers is what makes hospital attacks analytically interesting. As elaborated before, the predominant approach to Kerala's healthcare domain is underpinned by the Weberian schema of rationally acting individuals. Weber saw social and historical factors such as religious change, the growth of science and mathematics, capitalism and processes of bureaucratization as promoting forms of rationalization. A distinction between rational and irrational action was of fundamental importance to Weber; for him, history is a progression from irrationality to rationality. Such a rationalist vision is clearly discernible in the way the healthcare domain is analyzed in the development literature on Kerala, but it is of little use when it comes to explaining a collective action like the hospital attacks. Those who attack hospitals may be unconscious of the rationality underlying their actions or may not have rationalized the act to themselves beforehand. Though these are different senses of rationality from what Weber had in mind, it cannot be said that hospital attacks are just irrational actions committed by a group of irrational people.

There was a tacit accusation of inefficiency but also of complicity in these popular forms of outrage against what some saw as badly trained or incompetent doctors and a medical system that did not sufficiently monitor them. While doing fieldwork in Kerala, I received much information from many people that there existed a hidden illicit connection between allopathic doctors and the medical companies. There is a widespread conviction that most doctors receive "commissions" and "foreign trips" from pharmaceutical companies in return for prescribing their products to the patients. At a simple level, hospital attacks encode tensions against an educated class of medical professionals whose competence and commitment to work is questioned. Such attacks not only occur when people are in grief and under the influence of alcohol. The attacks are vehicles for articulating popular concerns against these licensed and authorized experts who

⁵⁷ The Hindu. "Fever outbreak in Kasaragod: several cases confirmed as chikungunya". 23 May 2008.

failed to care for the sick person sufficiently. It is the corrupt alliances of this professional class with the money economy -- with a monetary calculus-- that is being partly attacked. That is why even the police sympathise with the loss and anger of the protesters, and are seen to be complicit in allowing these popular forms of justice to supplant official forms of justice. It is also worthwhile to add here that the attacks on hospitals and medical personnel occur not just in response to the medical judgments of staff but also in response to attempts to isolate the patient from relatives and other close companions. It is individualized forms of medical treatment which are being resisted with relatives and friends seeking to be involved in the treatment process. Attempts to isolate the patient from relatives and friends are viewed with suspicion as making them vulnerable to professional incompetence. It is the social nature of illness in Kerala which is being affirmed in opposition to individualized forms of allopathic patient care.

The violence in Kerala's healthcare domain bears ample testimony to the fact that health-seeking behavior is intermingled with many other social factors. Hospital attacks invoke the complex ways in which Kerala's healthcare is connected to state processes. The so-called enlightened Keralites are attacking hospitals in the name of them not conforming to the vision of scientific progress that the hospitals should themselves embody. The rational political language of the state is folded back on itself through the population whose promise of total scientific care is not being fulfilled. The scientific rational language of medicine and the legitimacy of medical professionals are being questioned by the population. There is a suspicion that the commercialization of medical care is preventing the state fulfilling its obligations to foster and protect the life of its citizens.

What the attackers ultimately seek is efficient and accountable medical services. Such collective anger encodes more than just personal grief; it is also partly an expression of the population demanding a larger and more efficient healthcare system and personnel. Hospital attacks are calls for the state to improve its competence, effectiveness and management of patient

care, and for it to hire and regulate its staff more efficiently. They are demands for a biopolitics⁵⁸ that operates smoothly, effortlessly and according to need. The expansion of the scientific medical model and its rationalization of everyday life is not a simple one way process of seeking health care services, but involves complicities and participation of the population in a democratic politics that demands more and more forms of biopower. These assaults predominantly articulate a collective suspicion and distrust of medical professionals as not participating fully in the enlightenment project that they espouse and are meant to articulate. However, such class tensions are rationalized and voiced within the framework of demands for biopolitical security.

Foucauldian biopolitics within the institution of medicine involved the “use of vaccinations and other methods of curing and preventing disease” (Vaughan-Williams, 2009, p.97) as part of the growth of medical care, humanitarianism and enlightenment projects in western Europe, but these have been increasingly imported into Kerala. They have become part of a democratic socialist politics which in its anger also seeks to police and make the state accountable for the bio-politics that now legitimates the state. Here the state and its institutions become ensnared in the rationalist humanitarian ideology they espouse, and which is turned against them by a population that seeks fulfillment of the promise of modernity. A legitimation crisis can develop around the state which is handled by a renewed commitment of resources and personnel, and the new development of new health programs and initiatives. A long welfarist tradition has democratized a demand for bio-political security so much so that the population feels justified to attack the state when it fails to provide that security. Such attacks though they are often associated with strong emotions nevertheless demand a more rational and responsible state, one that provides adequate resources and personnel, and that supervises their competence and efficiency.

⁵⁸ Although the term ‘biopolitics’ is over hundred years old, it is Michael Foucault (2010) who introduces biopolitics as a modern version of exercising power, something that arises when “life itself becomes the object of structures of power” (Hepner & Redeker, 2011, p.xxxi). Foucault advances a historical and relational usage of the term by placing life at the center of political order (Lemke, 2010). In a biopolitical order, the health and illness of the population is of utmost importance for the government.

Chapter 2

FEVERS: FROM NATURAL TO POLITICAL



The photo above appeared in *The Hindu* – one of the leading English dailies in India – on 26 June, 2012. An accompanying caption explained: “ILL: A fever patient being taken to the general hospital.” This is just one among many “fever snapshots” that have featured consistently in Kerala’s news media since June 2010. I encountered many such fever snapshots during the different phases of my doctoral fieldwork in Kerala between 2009 and 2013.

As already noted, the period following monsoon rains is the unhealthiest time of the year, with morbidity rates from fevers increasing markedly (Jennings, 2005, Sharma, 2006). Historically fever has been rampant among the Keralites between the months of June and September, which is the major rainy season. “The prevailing diseases in the presidency of Madras”, to quote from a nineteenth century British geographer (Bell, 1832, p.473.), “are fever, dysentery, and hepatitis, and the sickliest period is about the commencement of the monsoon” However, up until the mid 2000s, the onset of fever symptoms in an individual or a group (all the

members of a family, for instance) during the monsoon months was considered quite 'normal' in Kerala. During this time of the year, being able to escape without fever is considered as atypical. "Didn't you get the monsoon fever? – is a very commonly asked question. The following are a few relevant excerpts taken from the field notes recorded in 2004. These excerpts are translated into English from Malayalam and reveal the perceived naturalness of monsoon fevers in Kerala. I heard many Keralites walking in the monsoon rain making similar comments.

Excerpt I

"Didn't you get a monsoon fever? Like last year, my illness was little more than a common cold. Two of my children had moderate fever. My wife escaped it. The fever during the monsoon months is a sort of purifying mechanism of the body. Normally, I won't go for any hospital treatment"

Excerpt II

"Does everyone in your family get relief from the fever? The sudden change in the climate from heat to cold causes this fever. There is nothing to get worried about. I had a little fever, too. Oh, I didn't go to the doctor. I drank a lot of *chukku kappi* (coffee prepared with dry ginger). Also, I boiled some water and its steam was taken in through the nose. I would consult a doctor only if these treatments didn't work for me".

Excerpt III

"Why are you going to the doctor? In the rainy season, you'd be bound to get the fever. Even if you go for the hospital treatment, it would take a minimum of seven days to accomplish normal health. Even if you're not taking any medicines, the fever would disappear within a week. In order to get rid of this monsoon fever, you have to take some rest. There will be a lot of sneezing and then a runny nose".

Excerpt IV

"I know myself what's it all about. These fevers require no treatment. They will end automatically. But I have a lot of urgent things to do this week. Thus I consulted a homeopathic doctor. Homeo medicines are enough, and more than enough for these seasonal fevers"

The above quotes illustrate the normalization of fevers within popular folk notions of health where folk remedies for fevers are often juxtaposed and privileged over western medical treatments. What is interesting is how fevers are posited as not necessarily something to be avoided. Indeed one person voices the view that the fevers are beneficial to the body, they

cleanse it and reconstitute its health and well-being. Fevers are certainly not something to seek medical treatment for. In the above quotes, one sees a resistance to allopathic treatment for fevers and a celebration of alternative popular knowledge as opposed to professional educated treatments. Indigenous medicinal systems are preferred if people do seek treatment. I haven't found any evidence to argue that Keralites assigned some sort of supernatural causation for the overwhelmingly high incidence of fevers following the onset of monsoon rains. As illustrated in the four excerpts from my field notes, fevers were seen as moments during which the human body is in a healthy interface with the forces of nature. Above all, Keralites attributed a high degree of naturalness to the fevers.

Ascribed naturalness

My field notes on the treatment undertaken for monsoon fevers points to their ascribed naturalness and the heavy reliance on home remedies prior to or instead of clinic or hospital based medical care. Being considered seasonal, climatic and natural, most of the monsoon fevers do not result in any medical consultation but are managed by people sharing and testing their own home remedies. Such remedies involve medications applied internally and externally. These often involve time-tested herbal combinations prepared by mothers or wives in the kitchen or near the household. These local popular therapeutic approaches are widely perceived to be in closer alignment with the body's own natural healing mechanisms. They are seen as less invasive and less foreign to the body. They are seen as local knowledge that is better suited to managing the local homegrown body.

The preparation and administration of herbs, plant extracts, oils, and other medications by family members gives a sense of self-control and autonomy to the family and the individual. It can manage and consolidate relations within the family and its kinship networks as these individuals become responsible for sharing plant materials and other natural medications and for preparing and administering them. Other forms of self-medication include customary remedies that prescribe changes in diet. Again this emphasises individual and familial autonomy, and it reconsolidates gender relations as mothers, wives and sisters become responsible for the health of the family and its members. Other home remedies included the use of drugs like the

paracetamol tablets and the Vicks cold & flu products which can all be purchased over-the-counter.⁵⁹

Only those with unusual fever symptoms will go to a hospital or clinic of some sort. But even in this case, it cannot be said that Keralites go for long-term hospital treatment. Consulting a doctor was primarily aimed at preventing the development of fever-related complications that would result in hospitalized treatments. At one private clinic I visited in 2004, patients with symptoms of monsoon fever were given medicines to be administered a maximum of three times, which in most cases finished within a day. The following quote, recorded at the clinic's premises, sums up nicely popular understandings of illness as requiring a short quick attack. "Oh, this fever may last a few more days. It's better to go to the hospital and have that *three-time medicine*. If this fever continues a few days longer, it can lead to serious complications such as pneumonia or jaundice". What often compelled people to consult the nearest clinics was their awareness that, if untreated, monsoon fevers could lead to complications at a later stage. Despite being considered natural, Keralites have a clear idea about the complications from persistent monsoon fevers and have a fear of the loss of control that this may imply in allopathic treatments.

Due to their 'perceived naturalness', regardless of their epidemic proportions, monsoon fevers largely remained outside the concern of political parties and the media until the mid-2000s. Journalists avoided reporting on fever outbreaks during the monsoon months and instead mostly reported the material losses and human casualties that occurred as the result of torrential rains. Up until mid-2000, the maximum attention that the outbreak of a not so common fever like dengue could create was few local newspaper articles and a couple of statements by regional politicians. None of the state-wide political parties or politicians was bothered by the fact that a large section of the Keralities was affected by monsoon fevers every year. Except in a limited

⁵⁹ Over-the-counter drugs are medicines that may be sold directly to a consumer without the prescription from a doctor. Many people whom I interviewed in 2004 consider that there is nothing wrong with buying non-prescribed drugs for monsoon fevers. "Even if one consults a doctor, he or she will often prescribe mostly the same medicines. Most of us have a fairly good idea about the name, colour and shape of commonly used drugs", to quote one of them.

way – so as to control infectious diseases, sewerage and water drainage - the government machinery was not mobilized in an attempt to control and prevent the outbreak of monsoon fevers through the public healthcare system. It is the naturalness of fevers which has disappeared with the large scale outbreaks of chikungunya and H1N1 fevers between 2007 and 2009.

Chikungunya and H1N1 – Two viral epidemics

Chikungunya is a severe arboviral infection characterized by the sudden onset of high fever and chills. The word chikungunya in Makonde⁶⁰ language means ‘the one which bends up’ referring to the stooped posture of the affected patient which comes from excruciating pain in the joints. It rarely causes death, but it can debilitate the affected person for weeks, and even months. The chikungunya virus (CHIKV) belongs to the genus *Alphavirus* (family *Togaviridae*) and is transmitted by the *Aedes* species of mosquitoes (Taubitz et al., 2007, Horwood et al., 2013). Chikungunya epidemics “are characterized by explosive and unpredictable outbreaks involving large populations simultaneously, interspersed by periods of disappearance that may last from several years to a few decades” (Kannan et al., 2009, pp.311-315). Ever since the first recorded outbreak in Tanzania (1953), there have been numerous well documented chikungunya outbreaks between 1960s and 1980s in both Africa and South East Asia, affecting large populations. After hibernating for years, the virus caused a major outbreak during 2005-2006 in Indian Ocean islands that included Comoros, Mayotte, Mauritius, Seychelles, and the Reunion islands where about a third of the total population were infected in six months (Chhabra, Mittal, Bhattacharya, Rana & Lal, 2008; Simon et al., 2007; Kalantri, Joshi & Riley, 2006; Volpe et.al, 2006).

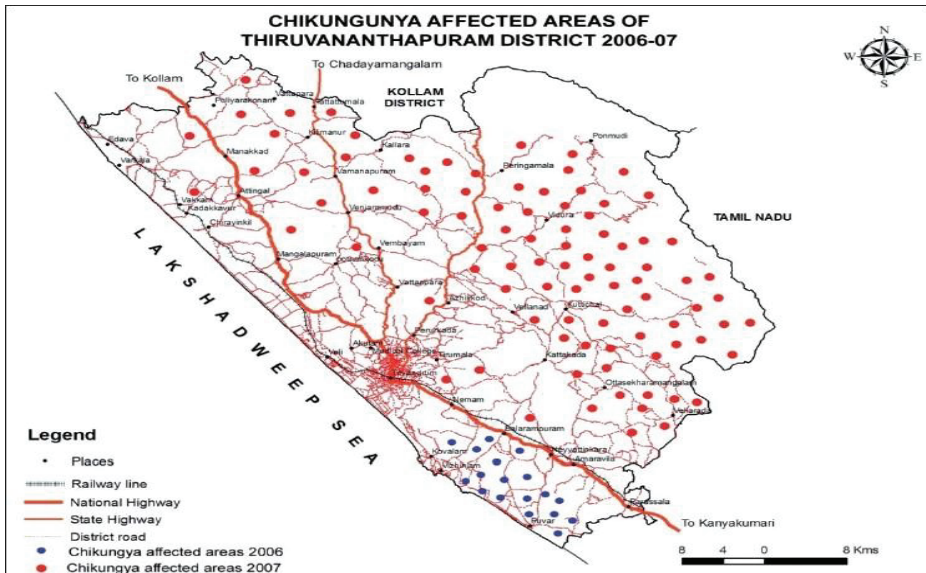
Chikungunya arrived in India during the early 1960s, reaching epidemic proportions in 1963. More than 30,0000 people were affected during the chikungunya outbreaks in 1963-64 (Calcutta) and in 1965 (Chennai). The chikungunya virus had almost disappeared from India until the outbreak in Maharashtra in 1973 and since then, no case was documented till the mid-2000s. Since 2005, there have been repeated chikungunya outbreaks in India affecting about

⁶⁰Makonde is a language spoken in southeast Tanzania and northern Mozambique, the place from which the chikungunya causing virus was first isolated in 1952.

fifteen States/Union Territories (Lahariya & Pradhan, 2006; Kumar et al., 2011). Since the pathogenesis of the chikungunya disease is not yet fully understood (Rohatgi et.al, 2014), there is a concomitant lack of conclusive scientific explanation for the extensive spread of chikungunya in recent times. There remained a clear dearth of scientific information on various epidemiological aspects of CHIKV. The high incidence and increased pathogenecity, according to some intra-outbreak studies (Sankari et.al, 2008; Kumar et al., 2014), is attributed to a recent mutation in the viral genome. It is postulated that the mutations in the genome offered the virus a chance to survive and multiply with better efficiency in mosquito vectors, which in turn has contributed to its rapid spread. According to a large-scale investigation conducted in one of the Indian Ocean Islands, it is a high frequency mutation (A226V) in the *E1* gene of the vector mosquito that increased the incidence rate to reach about seventy percent of the population. Given the absence of detailed pathological and follow up studies, there is no conclusive evidence on whether the pandemic nature of chikungunya is caused by the human host or by the mosquito population.

The history of chikungunya in Kerala can be traced back to 2006 when it reached epidemic proportion in the coastal regions of Allapuzha and Thiruvananthapuram. Subsequently, large scale outbreaks took place between 2007 and 2009, which affected many groups in north, central and south Kerala. The 2007 attacks were more extensive and the geographical location shifted to the plantation areas on the eastern side. Kottayam, Pathanamthitta, and Idukki were the heavily hit districts. Between 2008 and 2009, the chikungunya virus travelled northwards through the Ernakulum region and caused outbreaks in the Northern districts. There is no conclusive data on the number of chikungunya cases in Kerala since 2006, notwithstanding the fact that the lion's share of those who are affected by it seek treatment in registered hospitals and clinics. Though there are no official statistics about the total number of chikungunya infections in my principal fieldwork location, a ballpark estimation that I put forward - on the basis of my field experience, examination of hospital records and a household level survey - is thirty five percent of the total adult population.

A map of the areas of chikungunya outbreaks in the capital district of Kerala



(Source: Anish, Vijayakumar & Leela, 2011)

The epidemic severity of H1N1,⁶¹ popularly known as swine flu, in Kerala was not similar or comparable to chikungunya. The swine flu outbreak in 2009 was a far more minor epidemic event, in terms of the number of people affected by the disease. However, unlike what happened for chikungunya, H1N1 caused a couple of deaths in Kerala. Most H1N1 deaths occurred during the days between August to mid-October. According to statistics compiled by the Kerala Federation of Obstetrics and Gynecology (KFOG),⁶² up until the 17th October 2009, only 782 confirmed H1N1 cases and 11 deaths were reported in Kerala. The first reported swine

⁶¹ Influenza A (H1N1 virus) emerged in Mexico during April 2009 and swept quickly across the globe within six months. The new influenza virus produced a variety of medical conditions, ranging from mild upper-respiratory tract illness to severe or fatal pneumonia. Common symptoms were coughs, fever, sore throat, malaise and headache (WHO 2009). According to the WHO estimates, “as of May 25, 2009, the virus had spread to 43 countries, with 12,515 reported cases and 91 associated deaths, and it has been assessed as having pandemic potential” (Trifonov, Khiabaniyan & Rabadan, 2009, p.115-119).

⁶² *Advisory to physicians/obstetricians looking after pregnant patients with Influenza A/H1N1 (Swine Flu)*. (n.d.). Retrieved October 19 2011, from <http://kfogkerala.com/kfogadvisory.php>.

flu death in Kerala took place on 11 August 2009 when a 31- year old non-resident Keralite succumbed to the H1N1 virus at a private hospital.⁶³

Mortality is not the main reason why the swine flu outbreak turned into a major epidemic event. The high degree of interconnectedness of what were once more remote regions in Kerala with rest of the world made the situation highly precarious. Kerala, as many survey-based studies clearly hinted at (Zachariah, Mathew & Rajan, 2003; Zachariah& Rajan, 2008; Rajan , 2011), has one of the largest proportions of mobile migrant populations in India. Job-search migration from Kerala to foreign countries is higher than other Indian regions. Moreover, Kerala has a substantial under-thirty population who are either pursuing their studies or working at major Indian cities where H1N1 had arrived earlier and rapidly spread. There are many daily buses and trains that connect Kerala with the outside world. Note that Kerala is the only state in India which has an international airport every 250 kilometres. The predominant control strategy during these outbreak times was, therefore, to put airport-based surveillance systems in place. Consequently, checkpoints were started in Trivandrum, Cochin, and Calicut airports to screen arriving passengers. Many of them were admitted to the quarantine units at the nearest government hospitals following suspected symptoms of H1N1 flu. Quite a few of them were put under home quarantine. The serum samples of all those suspected of the new global epidemic were sent to be confirmed at testing laboratories. Similar arrangements were made at the main railway stations and interstate bus terminals, in order to prevent the exogenous virus from spreading in Kerala.

What makes the epidemic crises triggered by chikungunya and H1N1 outbreaks anthropologically intriguing has been its encompassing political context. The major emphasis will be on what I term 'fever politics', that is, the emergence of intense political activity centered on the nature, occurrence and control of fevers. I am referring to the current situation in which the politicization of fevers has emerged as an indispensable element in debates in the legislative assembly and every day party political discussions.

⁶³ The Hindu. "First swine flu death in Kerala". 11 August 2009.

Fever Politics

The years since 2010 have witnessed heated political debates over the high incidence of monsoon fevers, which until then were considered ‘apolitical’, natural phenomena. During the five year period 2010-2014, there were intense political contestations over fevers of all kinds, both in the legislative assembly and at all levels of public party politics. When travelling through Kerala during my fieldwork, I often heard politicians arguing with each other at public meetings over the issue. Monsoon fevers, which until then had no political value, suddenly became a political object that necessitated government intervention. The leaders of the opposition parties try to hold the government in power responsible for the spread of fevers. Following the onset of monsoon rains, outbreaks of fever are now being construed as an instance of government failure. On their side, the ruling party leadership defends the government by highlighting the preventive and curative interventions of the public health care machinery. They refute the opposition’s claims by pointing to brand-new public health initiatives such as mobile fever clinics and exclusive fever wards in government hospitals. It should be noted that such conflicts continued, even when the government changed hands after the election of a new legislative assembly in April 2011.⁶⁴

The unfolding of fever politics in Kerala shows a repetitive-cumulative pattern that continues beyond the years when the epidemic was at its height. By a repetitive-cumulative pattern, I mean that the practice of invoking fevers as an instance of government failure is not only repeated in each new monsoon period, but is also consolidated as the years move on. The context for fever politics was not the same during each of the three years. In 2010, it was the persistence of swine flu that turned fever into a matter of political debate and urgency. What triggered fever politics in the next year was a markedly different situation. In 2011, it was a geographically limited outbreak of leptospirosis in Northern Kerala (commonly known as rat fever) which sparked a widespread political furor in Kerala. When it comes to the situation in 2012, the crisis of waste disposal and small-scale outbreaks of the mosquito-borne dengue fever

⁶⁴This election was one of the closest fought in Kerala’s history, with the Congress-led United Democratic Front (UDF) beating the Communist Party of India (Marxist) and their allies the Left Democratic Front (LDF) by a margin of just 4 seats.

in the city/town areas provided a platform for political contests over fever. The same dengue fever caused further political outcry in 2013 and 2014.

The intriguing aspect of fever politics is the exclusive ability of fevers to secure news value. Despite the extensive prevalence of a wide array of diseases among Keralites, only fevers have become the subject matter of media attention and political debate. No other disease appeared prominently and consistently in the dailies and television channels along with other news items. The central point is that fever has by now become a way of arguing for a ‘failed government’ that needs to be replaced. It is not simply the number of affected cases or the incompetence of the ruling government to tackle the spreading fever that concerns the opposition. The very fact that fever continues to exist has turned out to be a matter of political crisis. A statement made by Opposition legislator P. Thilothaman in the legislative assembly on 11 July 2011 is an apt illustration of this: “Even Chief Minister Oommen Chandy is hospitalized [with fever] and still the government and the health department is idle”.⁶⁵ In 2012, while blaming the ruling party for their malfunctioning with regard to ensuring adequate manpower and medicines in state-run hospitals, the opposition pointed to the absence of the legislative assembly Speaker, G Karthikeyan, who was then down with the fever.⁶⁶

The Kerala Legislative Assembly has a monsoon session during the months of June and July. Between 2010 and 2014, monsoon fevers provided the setting for a political ritual⁶⁷ commonly held in the Kerala State Legislative Assembly – the opposition’s plea for moving an adjournment motion which was then followed by walking out of the assembly hall when it was denied. When such a motion is taken up in discussion, the Minister in Charge of the relevant government department is usually reprimanded for the mistakes and failures of his ministry. This is

⁶⁵News One. “Fever in Kerala generate heat in assembly”. 11 July 2011.

⁶⁶NDTV. “Steps taken to tackle spread of fever in Kerala: Chandy”. 21 June 2012

⁶⁷ My use of the term ‘political ritual’ is inspired by Martin King Whyte (1974) who worked on political rituals in China. However, since the ritual aspects of the political life in Kerala are not among my analytical concerns, compared to him, I use the term in a much limited sense. I refer in a short hand way to a set of parliamentary behaviors within the Legislative Assembly that have a regular performative theatrical basis. The term ‘political ritual’ is used by me to describe these events; the politicians or the political commentators in Kerala do not refer to these activities in this way.

one of the ways in which the Assembly can keep the government under control and have a check on the functions of different government departments under various ministries (Deogaonkar, 1997). There is nothing uncommon about the opposition members walking out of the assembly hall. The Speaker of the Legislative Assembly –who is always elected from among the elected members of the ruling party – generally refuses leave for the adjournment motion, protesting against which the opposition members walked out of the assembly house⁶⁸. It is in such a context that I refer to the events leading to the opposition’s walk out as a political ritual.

‘Fever walkout’ is a theatrical display meant to embarrass the government by signifying that it has fallen beneath contempt in denying members the right to debate important issues of life and death. This is how it works: The opposition sought leave for an adjournment motion, while criticizing the government for what they describe as the failure to tackle the fever that had spread across Kerala. The Minister of Health and Family Affairs, and sometimes the Chief Minister himself, replied to the criticisms of the opposition and defended the government’s position. The Ministers defended themselves by asserting their full awareness of the gravity of the situation, and elaborating the steps being taken to combat the spreading fever. Once the motion was denied, the Opposition staged a walkout from the state assembly, saying that the steps taken by the government were far from satisfactory.

Trajectory of Fever Politics in Kerala

There has been a clear repetition and consolidation of fever politics ever since 2010, but the set of conditions in which a particular fever unfolds itself as a political object in those years has not been the same. The following is an elaboration of how fevers have been reconfigured as a political object in the years between 2010 and 2014. Fever politics is not just repeating itself, it is being transformed across time to articulate specific relations, historical situations and immediate pressing contingencies.

⁶⁸ Out of the hundreds of adjournment motions moved for discussions during the past years, only a very few of them received a green signal from the Speaker’s chair. In the years between 1958 and 2011, only 21 adjournment motions were permitted for discussion in the legislative assembly.

2010 – H1N1

The May-June months of 2010 witnessed a large number of news reports saying the same thing – H1N1 is back in Kerala. It was reported that 17 people, the majority of them pregnant women, had died and another 219 had tested positive for the virus between May 13 and June 18⁶⁹. As a result of the political turmoil over the release of these figures, the government initiated control measures as if there was an extensive outbreak. Following a demand from the state government, an expert team appointed by the central government conducted an epidemiological investigation into the spread of swine flu in Kerala.⁷⁸ However, the news about persisting H1N1 influenza caused uproar among the opposition parties. It is this internalization of the fear of the outside which perhaps characterizes the long term effects of fever politics, with fears of global pandemics and migratory diseases becoming the basis for a medical apparatus that manages in greater detail the possible effects of fever which are seen as threatening the reproductive powers of the province. It is no accident that the greatest symbolic scandal and fear was the perception that swine flu was attacking pregnant women.

The Health Minister, P.K Sreemathi, was a target of attack from all sides for being too “indifferent” to the worsening fever situation in Kerala. In her defense against the Opposition’s accusations, the Minister accused the media of creating panic among people. With the help of some comparative figures, she even claimed that the so-called H1N1 outbreak in Kerala was nothing more than an image in the journalists’ minds. Such a remark caused further outrage and led the media and opposition to argue that the government was adamant about denying the fever crisis.⁷⁰ The minister’s statement was re-interpreted as her denying the reality of the fever outbreak and this was an example of the government’s insensitivity and neglect towards everyday forms of suffering. On 29th June, the Opposition parties staged a walk out in the State Legislative Assembly. The walkout was a protest over the Health Minister’s trip to the U.S. “when the state was in the grip of fever”.⁷¹ The Opposition leader demanded that the government should call back Ms. Sreemathi, taking into consideration Kerala’s alarming health situation.

⁶⁹ The Times of India. “H1N1 may soon be ‘normal’ influenza”. 18 June 2010

⁷⁰ The Indian Express. “Don’t shoot the messenger”. 12 June 2010.

⁷¹ The Hindu. “UDF stages walkout in Assembly over Sreemathi’s absence”. 29 June 2010.

Though the U.S trip had been planned six months in advance, her absence during this health crisis was equated to “Nero’s fiddling while Rome burned”.⁷²

Cabinet minister Elamaram Karim, who assumed the Health Minister’s position during her absence, tried to justify her trip by drawing parallels with the then ongoing Canada visit of the Indian premier. “Did we say anything when the prime minister left for abroad when the country is facing lot of problems on account of the indiscriminate fuel price rise?” he asked.⁷³ Minister Karim further refuted the charges against his colleague by saying that the number of H1N1 cases was less in 2010, as compared to the previous year. For him, there was no alarming situation in the State. The government, as he said, viewed the fever situation “very seriously”, and public hospitals have doctors, para-medical staff and enough stock of medicines.⁷⁴

2011- Rat Fever

In 2011, the months of June, July and August passed without much news reports on fever. It was during mid-September that the news media started carrying reports of a Kerala that was shivering under the grip of rat fever (leptospirosis). The following are the titles of some of the news reports in the English dailies, most of which appeared on the same dates. “Rat fever death toll rises amid Cholera”, “Northern Kerala rattled by rat fever”, “Kerala in the grip of rat fever”, “Killer ‘rat fever’ worries Kerala”. Within a few days, the government became defensive as the opposition leaders started taking up the issue of an outbreak. In consequence, the Government activated all relevant departments to counter the spread of rat fever. Preventive drugs were distributed under the supervision of members of local bodies, PHC officials and ASHA workers.

Health Minister Adoor Prakash, on 22nd September, directed all District Collectors to ensure coordination of various departments (including health, local self-governing bodies, water resources, education and social welfare) in conducting sanitation drives to contain the epidemic.

⁷² Current News. “Kerala ‘fever’ over missing minister”. 5 July 2010.

⁷³ Thaindian News. “Government defends health minister’s foreign trip”. 29 June 2010.

⁷⁴ The Hindu. “UDF stages walkout in Assembly over Sreemathi’s absence”. 29 June 2010.

The Minister also convened an emergency meeting in Kozhikode, the district that had the maximum number of rat fever cases.⁷⁵ The meeting decided to start ‘fever clinics’ with the support of the Indian Medical Association. The next major act by the emergency meeting was the decision to initiate ‘fever wards’ in government/private hospitals and medical camps in the affected areas so as to seal off and contain the disease as well as offering specialized care.⁷⁶ On top of that, the Minister himself visited hospitals where the leptospirosis patients were undergoing medical treatment. This endangering of himself was meant to send a reassuring message that the state had total control of the situation, that all danger was contained. It shows that fever politics has its own iconic theatre of sacrifice and care, it allows politicians to steep themselves within a dramaturgical structure of care that resonates with all kinds of religious and secular understandings of care.



Health Minister Adoor Prakash visiting a fever patient in North Kerala on 22nd September 2011⁷⁷

⁷⁵ The New Indian Express. “Rat fever assumes epidemic proportions”. 23 September 2011.

⁷⁶ The New Indian Express. “Northern Kerala rattled by rat fever “. 23 September 2011.

⁷⁷ Photo retrieved on 30 September 2011 from <http://www.in.com/photogallery/day-in-pics-september-23-2011-20655736.html>.

A series of political wars have broken out over who was responsible for the rat fever outbreak. Pinarayi Vijayan, the State Secretary of Communist Party of India (Marxist), charged the Congress-led UDF Government with doing nothing to prevent the scourge.⁷⁸ The Congress alleged that the Left had done nothing to prevent the epidemics while they were in power, and so they had no right to criticize the Government. A war of words also broke out within the ruling UDF over the matter. According to Union Minister of State, Mullappally Ramachandran, of the Congress, a major reason for the situation was the failure of local self-government bodies to spend effectively the funds distributed by the Centre under NRHM for sanitation activities⁷⁹. The Minister of Local Self Government in Kerala rejected such an interpretation by saying that the local bodies had done their jobs well but the present disease outbreak was caused by untimely rains.

The Health Minister Adoor Prakash, the man in charge of the matter, tried to trivialize the matter by saying that there was nothing unusual in the spread of leptospirosis and other diseases. According to him, the incidence of leptospirosis in 2011 was much less when compared to the rates noticed in the past five years (when the Left was in power). Unsatisfied with the Health Minister's response, on 27 September 2011, the Opposition staged a walk out from the legislative assembly following their failure to move an adjournment motion. On the next day, 28 September, the Health Minister was again attacked for his reported remark that 'the fever casualties reported in the State over the last few weeks were due to liquor consumption'. The deputy leader of the opposition termed the Minister's remark a shame for the entire State. The Minister tried to explain that he had only reiterated some of the views expressed by a team of medical specialists from the central government who had toured the State to study the fever situation. The team, he said, was of the view that a specific percentage of the fever deaths were on account of liver ailments⁸⁰. The point here is that the fever issue took on the status of a moral

⁷⁸ Mathrubhoomi. "Fever deaths: Pinarayi blames govt". 23 September 2011.

⁷⁹ Mathrubhoomi. "Efforts on to contain contagious diseases: Mullapally". 22 September 2011

⁸⁰ Interestingly, this liquor-fever controversy emerged just two days after the State Epidemiologist, A. Sukumaran, made a warning through the press that alcohol contributes to the spread of communicable diseases such as rat fever. Backing his warning with evidence from the field, Dr. Sukumaran said seven out of every ten people afflicted with leptospirosis were found to be frequent drinkers. Heavy drinkers

panic that was used to ‘police’ other social problems such as heavy drinking and the consumptive pleasures of working class culture. Even as Mr. Prakash tried to reason with them, the Opposition members rushed complaining into the House, and forced the Chief Minister to save his government by offering apologies for his colleague’s remark.

2012 – Dengue Fever

The ‘fever politics’ of 2012 primarily revolved around the garbage crisis at Thiruvananthapuram, the capital city of Kerala. Waste-management in the city got stalled in December 2011 after people of the nearby Vilappilsala village launched stiff resistance against the disposal of city waste in a disposal garbage treatment plant in their area. The Government was not able to break that resistance and resume waste disposal, despite a favourable court order and massive police mobilization. The deadlock continued through January and into June with no improvement in regard to garbage disposal. The untreated garbage that spread all over the capital city became a public health concern with the advent of monsoon rains in the first week of June. The public health authorities had found that the mosquito density was very high and cautioned of a possible dengue outbreak after the Thiruvananthapuram city corporation stopped collecting garbage in the city.⁸¹

Between June and August 2012, an outbreak of dengue fever did occur in Thiruvananthapuram. As on 12 September 2012, the total number of the reported dengue fever cases in Kerala was 2100, out of which the capital district alone accounted for 1830 cases. Nearly half of the wards in the Thiruvananthapuram city were reported to have an epidemic situation.⁸² For the first time in the history of Kerala, prohibitory orders under Section 144 of the Criminal Procedure Code were imposed in the capital to control the alarming rise in dengue fever cases. This order made use of a legal provision which empowers the District Collector to impose Section 144 whenever public health is threatened. Under the orders, anyone dumping

often have damaged liver and a major viral attack worsens the condition and quickens death, he said. Again, heavy drinkers and many low-income drinkers will often use unprotected water – directly from the public water taps or open wells which could be polluted (The Hindu, 27 September 2011).

⁸¹ The Times of India. “Dengue grips city, 139 cases reported”. 12 February 2012.

⁸² The Hindu. “Thiruvananthapuram tops Kerala dengue chart”. 13 September 2012

waste in public will face stringent action, including arrest and non-bailable charges. Such an action is predominantly aimed at controlling illegal slaughter houses, vegetable vendors and way-side eateries, who throw their waste products around in an indiscriminate manner.

The monsoon session of the Kerala Legislative Assembly began on 11 June with a walkout by the CPI (M)-led Opposition over the Government's failure to prevent the epidemic fevers and the growing garbage problem.⁸³ While moving the adjournment motion, V Sivankutty, CPI (M) member, criticized the Government for its malfunctioning. "A million people are down with fever. Eleven persons have already died of fevers and the Government is unmoved. These figures relate only to patients reaching the Government hospitals. When those approaching the private hospital are taken into account, the number would be mind-boggling," Sivankutty said.⁸⁴ The Opposition Leader V S Achuthanandan blamed the government for not showing adequate concern on this matter that affected the health of all people and for causing the outbreak of different viral fevers, especially dengue.⁸⁵

A few days after, on 21 June, the LDF-opposition once again took up the fever issue. What concerned them was the continuing spread of viral fevers in Kerala. The lack of necessary medicines and doctors in government hospitals, according to the opposition, had made things "dangerous". Seeking leave for an adjournment motion on the issue, CPI (M) member Elamaram Kareem attacked the government for being "lavish with assurances that are seldom implemented. The high cost of medicines and the lack of adequate market control measures in the drug sector also drew his criticism. Replying to the adjournment notice, both Chief Minister Oommen Chandy and Health Minister V S Sivakumar said all possible steps had already been taken to check the spread of fever. Denying the LDF charge that there was a shortage of drugs in hospitals, Minister Sivakumar said, the government had ensured that 117 varieties of drugs for

⁸³ Madhayamam. "More than 8 lakh fever cases in the state". 20 June 2012.

⁸⁴ India Medical Times. "Opposition demands action as waste-caused fever grips Kerala". 11 June 2012.

⁸⁵ Press Trust of India. "Crisis management group set up to tackle serious health problems", 12 June 2012.

fever were available in the government hospitals. He said the State government was taking all measures in its powers to prevent the drug-makers from making unscrupulous profit out of the situation.”⁸⁶



Health Minister V.S Sivakumar talking with a fever patient while on a 'lightning inspection' at Thiruvananthapuram Medical College Hospital on 11 June, 2012⁸⁷

During the month of June, Kerala witnessed a series of institutional interventions. The state cabinet held two special cabinet meetings to discuss the spread of fever. A Crisis Management Group was formed to tackle both the spread of fever, and the problem of removing the garbage. Mobile fever clinics – comprising three doctors, two nurses, a pharmacist, and support staff – were deployed to areas in the Thiruvananthapuram city which reported high incidence of viral fever. Exclusive fever wards were opened at the Medical College Hospital for treating those admitted with viral fever. In order to tackle the staff shortage in government hospitals, the government gave permission to recruit 1,900 temporary staff, including doctors.

⁸⁶ The Hindu. “Chief Minister seeks complaints about hospitals from legislators”. 22 June, 2012.

⁸⁷ The Hindu. “3 fever wards in MCH soon”, 11 June 2012.

2013 and 2014 – Dengue and Chikungunya.

The year 2013 and 2014 also witnessed fevers causing a great deal of serious debate in the legislative assembly. Titles like “Kerala shivers with fever” formed the headlines of most print and electronic media. The opposition parties put the government under fire by highlighting the shortage of doctors in the health service. The opposition leader argued that the ruling government has ignored the pain and sorrow of families whose relatives had died from the fever. The Leader of the opposition VS Achuthanandan demanded that compensation be given to the next of kin. "Are you prepared to provide compensation to the families of the dead? It happened due to your ineffectiveness," asked the opposition leader. The Chief Minister replied to this question, in a challenging manner: "Yes, I will pay the compensation if anyone can point out that at any point in the five-year term of Achuthanandan (2006-11), the state government paid compensation to anyone who died of fever." ⁸⁸

The chief minister went on to say that what was needed was not discussion but action, and he had already convened an emergency meeting to deal with the epidemic crisis. After failing to seek leave for an adjournment motion, the Opposition conducted a walk out. It should be noted that, regardless of media uproar and protests from the opposition parties, fever hasn't created a big problem in 2014. The total number of fever cases in Kerala showed a decrease of 1.71 lakhs compared to the previous year. The number of people suffering from chikungunya and dengue fell to one-third. This was partly due to interventions by the Kerala government –the appointment of doctors on a temporary basis, increasing the availability of medicines in all primary health centers, allotting more funds to increase cleanliness. There emerged a widespread feeling that “At last a government has managed to rope the fever monster”, as told by a local shopkeeper.

⁸⁸ Mathrubhoomi. “Fever leads to opposition walk out in Kerala assembly”. 12 June 2013.



A film poster released in January 2015 saying “Complements to the State Government which give Keralites a fever-free 2014”

Simulated Outbreaks

The intense political dramas around health unfold at a time when there is nothing that can be called a large-scale epidemic crisis in Kerala. An epidemic or outbreak of the disease, as per the epidemiological literature, is said to exist when the number of cases is in significant excess of the expected number for that population based on past experience. Endemic diseases assume epidemic proportions only when there is an excess concentration of cases in any given place, time period, or population group (Evans, 1976). It is a fact that chikungunya assumed epidemic proportions in Kerala between 2006 and 2009 – it affected large-scale populations spread out in north, central and south Kerala. H1N1 fever also assumed epidemic proportions in 2009, though not on a comparable scale. However, none of the much publicized fever crises in 2010, 2011, 2012, 2013, and 2014 could be regarded as successors of the chikungunya or H1N1 outbreaks. Ever since 2010, the fever situation has been brought under control, and chikungunya outbreaks no longer occur in epidemic proportions. They are small-scale outbreaks, both in terms of the number of people affected and the geographical spread. It is the small-scale and localized outbreaks of other fevers – especially that of dengue, H1N1, and rat fever – that has now started to trigger political and media uproar during the post-chikungunya period.

The fever politics that unfolded over leptospirosis (rat fever) in 2011 is a good illustration. The political outcry over rat fever emerged at a time when the statistics for this fever showed a downward trend. Every year, according to the estimates of Health Department,⁸⁹ the total number of confirmed rat fever cases in Kerala fell between 1000 and 1300. The number of confirmed leptospirosis cases, which occurred during the period between January and September of 2011, was 489. The corresponding figure for the first nine months in 2010 was 800. What needs to be added is that the months in which rat fever cases are most prevalent remained the same throughout 2009, 2010 and 2011. The August-October period could be described as leptospirosis months, and the peak month is usually September. Therefore, regardless of the uproar among opposition parties and the hue and cry in the Kerala media, there has been a sharp decline in the number of confirmed leptospirosis cases. A turn down in the number of confirmed rat fever deaths is illustrated in the following figures: 135 (2008), 106 (2009), 100 (2010). Despite all the upheaval generated by rat fever in September, the first nine months of 2011 registered only 41 confirmed rat fever deaths. It is thus quite clear that the political uproar over rat fever in 2011 is not because of an extensive epidemic situation in Kerala but a product of perceptions, understandings and the politicization of the fever and its management.

It should be noted that localized outbreaks of epidemic fevers like dengue and the subsequent establishment of fever clinics has been a recurrent feature in Kerala ever since the mid-1990s. Because of this, fevers have become institutionalized at the center of the public health system. It is argued that “the institutionalization of fever as a disease has occurred through two sets of practices: first, discursively at the societal level by interactions among health professionals, the media, organizations representing various systems of medicine, and ordinary people; and second, curatively at the clinics which provide fever care, including diagnosis and treatment” (George, 2011, pp.337-397). The institutionalization of fever as a disease serves to transform the apolitical or “natural” character of the regular monsoon fevers. They continued as

⁸⁹ Asianet News. Interview with the Deputy Director, Directorate of Health Services, Kerala. Telecasted on 24 September 2011.

an object of medical concern until the chikungunya fever outbreaks, after which they assumed a new intensified meaning. It was after the epidemic crisis between 2007 and 2009 that localized fever outbreaks became a Kerala-wide political issue and started to attract media attention. The complex way whereby fevers – an erstwhile natural illness – have reconfigured themselves into a political object in Kerala has a lot to do with the aggressive reporting of the print and visual media in Kerala⁹⁰.

Many times during fieldwork, after having seen many television news reports, I have asked myself ‘Is there a real outbreak in Kerala as a whole?’ My point is this: After the chikungunya and H1N1 outbreaks, regardless of the panic-stricken outcries by the media and opposition politicians, there has been nothing like a large scale fever epidemic anywhere in Kerala. Instead, what has happened is that any slight increase in the monsoon fevers or the outbreak of dengue or rat fever in select pockets is seen against the backdrop of an imaginary large-scale epidemic crisis. Fear generated from the visual images of epidemic fevers in Kerala corresponds with Jean Baudrillard’s arguments regarding the creation of a simulation of the real. To cite Baudrillard (1991): “Against this obsession with the real we have created a gigantic apparatus of simulation which allows us to pass to the act ‘in vitro’. We prefer the exile of the virtual, of which television is the universal mirror, to the catastrophe of the real” (p.28). The emergence of a simulated epidemic as the continuation of a real epidemic emanates from the media-generated social fear of an imminent outbreak like that of the previous chikungunya and H1N1 outbreaks. Baudrillard’s analytical frame analyses a media-saturated world with virtual realities where everyday experience has become more and more comprised of simulations such as television shows. Society, as per this analytical frame, operates through screened information flows and speculative connections (Orr, 2006). Given that reality disappears entirely behind its simulations, what remains is “a panic-stricken production of the real” (Baudrillard 2001, p.174).

⁹⁰The exposure to mass media is high in Kerala. The television density in Kerala is 85 per cent, while the national average is 56.8 (The Hindu, 2013). Among the Indian states, newspaper readership is highest in Kerala and, to quote Nossiter (1982), “the habit of reading a politically informed daily newspaper is well enough established among the lower castes and poorer classes as to render the claim that by lunch time every Malayali read his morning news”(p.38).

What underpins these ‘simulated outbreaks’ is a complex meshing of fever statistics released by the government’s Health Department with the ‘aggressive’ reporting of the small-scale, localized outbreaks in print and electronic media. Most of the time, the media exaggerate the dangers involved, particularly in regard to giving detailed coverage to fever deaths and those who seek hospital treatment. Media reports have highlighted the limitations of the existing health infrastructure to deal with the situation. Newspapers and television channels in Kerala have an interest in covering monsoon fevers following the three years of chikungunya crisis. Visuals of the queues formed in hospital corridors, leading to the outpatient clinics, are always carried with great importance by the mainstream media.



The above newspaper clipping titled “Kerala tops in dengue fever” details the fever statistics released by the Health Department in January 2014.⁹¹ This news report came out at a time when the television channels were carrying reports of dengue outbreaks involving small populations in select regions. According to these fever statistics, 7911 dengue fever cases were reported in Kerala. The number of deaths in the state (25) is said to be the highest in India. It is

⁹¹ Mathrubhoomi. “Kerala tops in dengue fever”. 5 January 2014.

evident that, when compared to the size of the population involved in chikungunya epidemic between 2006 and 2009, the dengue outbreak in 2013 wasn't of higher magnitude. When considering the overall population of Kerala or even of the 14 districts, the number of dengue fever cases in 2013 is not unusual or unexpected.

Fever has become a way of further popularizing statistics and a comparative rational methodology. It has become part of the further diffusion of mathematics, science and medicine into the everyday population, and so it is part of the rationalization of everyday life as well as the rationalization of government and politics. Following the chikungunya outbreaks, the health department has improved its alertness through implementing fever surveillance and a reporting system, along with better diagnostic facilities. The key players in such a public health system are a grassroots-based network of female public health volunteers known as Accredited Social Health Activists (ASHA) workers. I will elaborate about ASHA workers in Chapter 4, but it is worth mentioning here that the government is now in a position to produce the latest statistics on the fever situation in Kerala. The regular 'official' releasing of these detailed fever figures began after the chikungunya outbreaks. Newspapers and television channels carry stories of localized epidemics along with the district and state rates for fever that have been released by the state Government. In addition "fever deaths" has become a prominent news category during these years. Since June 2010 fever statistics have started coming out in a more or less systematic manner. They include such things as the number of deaths due to different fevers, information about hospital admissions and outpatient attendances, and up-to-date figures of confirmed and suspected dengue/rat fever cases.⁹²

⁹²It should be noted here that so far there has been no major allegation about any possible understatement of the number of fever cases. Neither the media nor the opposition challenges the comprehensiveness and authenticity of these fever figures, but they still often demand more data collection and on an ongoing basis. The Kerala government still lacks an efficient mechanism to gather data from private clinics and hospitals. However, the present-day public health machinery has penetrated deeply into grassroots community levels, it is capable of gathering and releasing the most recent fever figures, which then constitute the basis of most fever-related discussions.

Conclusion

Fevers have become redefined as a new modern disease that is interpreted in a number of non-natural ways. Ever since 2010, I observed a clear tendency to link fever symptoms with the possible onset of more serious medical conditions. One of the most common responses to a fever today is: “How long can I remain at home with this current fever? It’s always better to consult a doctor”. The occurrence of monsoon fevers between the months of June and September has turned out to be a source of new fear, anxiety and panic. Monsoon fevers are no longer about choosing an appropriate form of self-medication; instead they have become a political issue that challenges the failure of the state government to control adequately the health and well being of its citizens. The policy makers in the Department of Health and Family Welfare have come under intense pressure from the print and electronic media, which have generated a good amount of fear and panic over the increasing number of fever cases. There is a demand for better medical access and better medicines as well as improved sanitation, drainage and water supplies. There is a demand for government to provide a secure life that reduces the risk of fevers.

Chapter 3

FIELDWORK SETTINGS

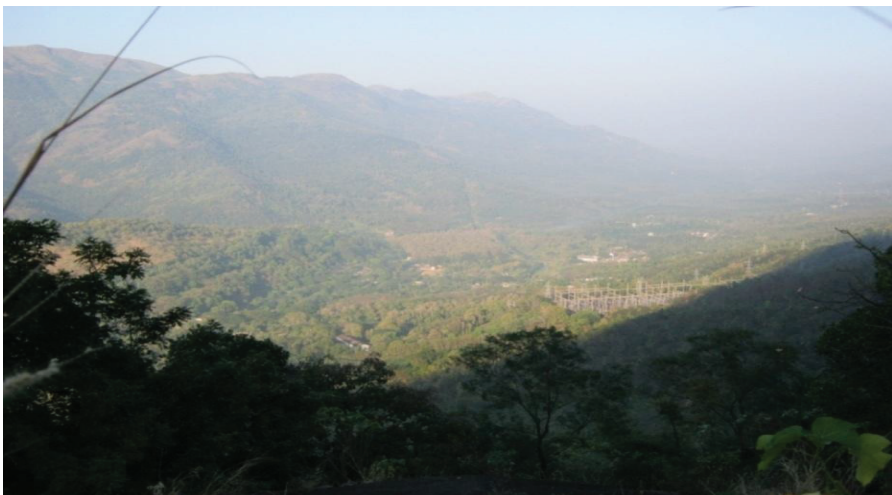
Introducing⁹³ the landscape of Keranad is not very difficult. It is not so geographically diverse, compared to many places in Kerala. Although Keranad is barely eighty kilometers away from Kochi, the largest metropolis and industrial hub in Kerala, there is a big difference between the landscapes. Unlike the Kochi area, which is a low-lying flatland stretching westward to the seashore through a number of touristically popular backwaters, Keranad falls within the highlands of Idukki district. Except for the narrow stretch of flatland where a small township is located, the entire region is noted for its mountainous hills. All the hills have been connected with the flatland by a set of tarred roads that have many potholes. The township area is connected to the rest of Kerala by a state highway. Certain parts of the hills are declared ‘forest’ with a wide range of flora and fauna. Streams originate in the Keranadan hills and pour out through the valley, until they merge into one and proceed through the flatland. Known for its scenic beauty and all around greenery, Keranad and its adjoining regions have nowadays become a popular shooting location for Malayalam films.

The climate of Keranad is similar to most other places in Kerala – moderate and balanced throughout the year. The temperature range lies between 23 and 35 degree centigrade, depending on seasonal variations. Summer days usually start in February, but the hottest time of the year falls in the months of April and May. Typically, the heavy monsoon rains begin around 1st June and end by 25th July. During the years of my fieldwork in Keranad, however, I found some deviation from the usual monthly pattern of extreme hot and rainy days. Extreme hot, dry weather mostly prevailed during the months of February and March. Also, several days of heavy rain occurred in August and September. A significant increase in day temperature during the summer months has been yet another change that has occurred in recent years. There were days in 2009 and 2010 when the thermometer showed forty degrees. For many Keranadans I talked with,

⁹³Before describing contemporary Keranad, there is a disclaimer. Since many aspects of Kerala are discussed in the introductory chapter, I will limit myself here to only those aspects of Keranad that are crucial for understanding the forthcoming ethnographic chapters. Therefore many points discussed by other scholars who have worked on Kerala are omitted or only briefly sketched here.

chikungunya and other emergent fevers emanate from the recent changes in the distribution and intensity of heat and rain.

A considerable portion of the uphill parts of Keranad is thinly inhabited. However, despite the undulating terrain, independent households spread across the entire lower hills, with greater concentration on the lower slopes running towards the township area. On a rough estimate, the population of Keranad does not exceed 8000, and the total number of housing units is 3000. The total size of Keranad is approximately 400 hectares, out of which at least 40 hectares belong to the project area of a hydroelectricity power plant. Besides a couple of tunnels and transmission lines, the project area contains some government offices and an enclosed residential colony for the officials and electricity workers. There is a canal that carries water from the power plant and it runs along the flatland towards the west. Most of the private land in Keranad is under cultivation, but that does not mean that every family living there possesses cultivable land. The dominant crop in the area is rubber tree (*Hevea brasiliensis*).⁹⁴ There are also coconut and a wide range of other trees all around; however, it is the rubber trees that make the hills look like a green forest.



A view of Keranad from a hill top

⁹⁴ One main source of income was tapping the rubber trees within a house compound to gather latex. The men tapped rubber, whilst the women did most of the latex collection and processing.

Keranad is a place where, except for the two native tribes named *Urali* and *Arayan* numbering around 75 families, every community has a migrant background. Two large-scale migrations of Malayali settlers between 1930s and 1970s have been vital to the making of contemporary Keranad. Many members of the tribes were killed, either at the hands of the settlers or from the diseases carried by them. Small pox and malaria, two of the most deadly epidemic diseases of the time, took the lives of many settlers as well. Despite large scale population losses due to epidemic diseases, the settlers persisted in coming. The migration between 1930s and 1950s involved the cultivation of crops and it was part of a policy by the Government of Travancore to distribute *pattas* (possession rights) to migrant farmers in so-called uninhabited areas (Nair & Ramkumar, 2007). Settler farmers came from the Kottayam, Kollam and Pathanamthitta districts. It was mainly the Syrian Christians (Catholics) from Kottayam district who moved to Keranad. A considerable number of Hindu families, many belonging to the Nair and Ezhava castes, also moved in from Meenachal taluk in the Kottayam district. During the same period, significant numbers of lower caste and outcaste Hindus (now known as *dalits*) also moved into Keranad to work as wage laborers and indentured servants.

The second major wave of migration to Keranad occurred in the early 1970s. These new migrants were in search of work at the construction sites of a new hydroelectricity project. The project involved the construction of an electricity power plant, transmission lines, and a new switchyard. Among those workers who migrated to Keranad for the project work, there were Malayalis from the southern districts of Kerala and Tamils from various parts of Tamil Nadu. While most Tamils went back following completion of the project by late 1970s, a greater number of the Malayali workers opted to remain in Keranad. A significant number of Malayali migrants also came to start businesses in the project sites; nearly all of whom later settled in Keranad. A few more people moved into Keranad after the mid 1980s, and these small-scale movements are still continuing. However, it was the early two-large scale migrations (1930-50s, and early 1970s), that had major consequences for land holding and for shaping the future organization of Keranadan society.

Keranad is part of a village panchayat – the institution of self-government envisioned in Article 243 of the Indian Constitution for rural areas⁹⁵. It should be noted that, thanks to the distinctive urbanization pattern in Kerala, the Keranad village panchayat does not function in an isolated, rural setting. Like most other villages in Kerala, there is no large disconnection between Keranad and adjacent towns, with respect to distribution of urban facilities. Despite being small, Keranad has considerable facilities, such as shopping, schooling, healthcare, religious worship, banking, transportation etc.

The Village Problematic

The exceptionality of Kerala villages came to the attention of scholars as early as 1960s. In his paper presented at a conference on Urbanization in India held at Berkeley, California, in June-July 1960, V. Nath pointed out the “extreme departure” of Kerala from the tightly nucleated village pattern found elsewhere in India consisting of a distinct cluster of houses contained by cultivated fields. To quote Nath (1961), “In Kerala the unit of settlement is the individual homesteads situated within their own compound and agricultural lands. These homesteads extend in almost unbroken lines along the roads and other areas suitable for settlement”(p. 143). For categorizing the dispersed settlement pattern unique to Kerala, it has been suggested that either “rural-urban continuum” or “rurban”, meaning neither rural nor urban, might be appropriate designations (Sreekumar 1993; Kannan, 2000; Tharamangalam, 1981). T.J Nossiter (1982), who did fieldwork in Kerala between 1970 and 1977, described the situation as “ribbon development” that extends not just along the roads and tracks but through the fields as well. He felt that village “is more of an administrative convenience than a spatially distinct reality” (p.40). It should be added that A. Aiyappan, a native anthropologist who studied under Raymond Firth, also wrote about the non-nucleated character of Kerala villages. In his book ‘Social revolution in a Kerala village: A study in cultural change’ (1965), there is a postulation that villages are a geographical fiction, and the village no longer exists as a social structure.

⁹⁵ The 73rd amendment (1993), which introduced Article 243 in the constitution, required all state governments “to set up a three-tier structure of panchayat raj and take up steps that will ultimately enable them to assume the role of self-governing institutions” (Srivastava 2006). The three tiers consisted of grama panchayat at the village level, zilla parishad at the district level and an intermediate tier at the block level called panchayat samithi.

It is a fact that Kerala villages vary considerably in terms of their 'share' of urban amenities. However, compared to many other Indian states, major infrastructural deficiencies are not so evident in Kerala when travelling outside the city limits. Barring a few selected pockets, there is a great deal of homogeneity in terms of access to educational, medical, business, and transportation infrastructures. As a result, Kerala's population spreads out across the entire habitable land area, without having much concentration in selected clusters or at the urban centers. The settlement pattern in Kerala could be described as 'scattered homesteads' – "the entire population is dispersed more or less uniformly across the entire geographical area, with concentration at certain nodal points" (Misra 1979, p. 125). Yet, the population density of Kerala, 859 persons per square kilometer⁹⁶, is one of the highest in India, more than twice the national average. George Woodcock (1967) portrayed the situation in the following manner.

"Kerala villages bear little resemblance to the tight, squalid settlements of North India which huddle along a single street or in a knot of houses for mutual protection...In spite of their unorganized appearance, the Malayali villages have quite elaborate social structures. Each will have at least one school and a public library; it will have a public health service; trade union branches and political party groups; places of worship (often a temple, a church, and a mosque) and always a few tea shops which serving as a meeting places for the various communities...In many respects, it is urban". (pp. 44-45).

The use of the word 'village' can be a tricky business in the Keranadan context. For someone travelling from Kodichal, which is the nearest municipal town, Keranad will not feel like an utterly secluded backwater even if it does not have all the facilities in Kodichal. Many Keranadans do go to Kodichal for shopping, particularly for clothes and gold for momentous occasions. Since Keranad has only small scale hospitals and limited facility for private consultation with good doctors, they frequently travel to Kodichal for better medical treatment. The same is the case for education as there are lots of schools and colleges in the Kodichal area. There are also times when they travel to religious places outside Keranad. However, for the most part, residents can manage their needs by remaining close to their township.

⁹⁶ Retrieved on February 14, 2013 from http://censusindia.gov.in/2011-prov-results/data_files/india/Final_PPT_2011chapter7.pdf.

The center of the Keranad region is a small township. Called interchangeably by most Keranadans the “city” or “town”, a greater part of the shops, roads, religious places, and such things as schools and hospitals are located in the flatland. It is the busiest and most crowded part of Keranad. Apart from the pocket roads that emanate from the hills, the center of Keranad is connected to the rest of Kerala by three major roads, including the one heading for Kochi – the largest town in Kerala. Towards this direction, there is at least one bus every ten minutes during the daytime. Within a one-kilometer radius of the Keranad bus station, there are five schools, one petrol/diesel station, three banks, one cinema theater, two temples, three mobile phone towers, one ATM machine, four churches, one specialty hospital, five small clinics, and five different government offices in early 2012. There are at least 150 shops in the township area, ranging from grocery stores to internet cafes. They are located in seven small shopping complexes and a number of other independent buildings. The growth in the commercial sector has opened up a wide range of consumption avenues. It has also been accompanied by the development of a slum-like shopping region adjacent to the town center. Consisted mostly of *petti-kada*,⁹⁷ this region provides a wide array of goods and services that support and facilitate the day-to-day living of a Keranadan household. These include everyday items such as bamboo sieves, clay pottery; coconut shell ladles; broomsticks; rattan cane, fresh cassava (tapioca), garden digging tools and the various parts needed for chewing betel nut. One of the busiest service centers in Keranad is a *petti-kada* where umbrellas, foot wear, and bicycle parts are repaired. The expansion of the township region in Keranad has been facilitated by changes in the Keranadan economy after 2000.

Integration into the global economy and the H1N1fever

Since the 1950s, Keranad has depended on cash crop agriculture, with rubber trees as the major source of income. Other crops include pepper, coffee, and cassava. Public sector employment and ownership of shops and other businesses in the township region also provide significant income. Over the past fifteen years, non-agricultural income, particularly remittances from foreign countries and India’s metropolitan cities, has grown markedly. For almost half of

⁹⁷ *Pettikada* are small shops that are cheaply built from plywood, tin sheets and plastic roofing sheets. They wear out quickly and they look old and dusty, compared to the more formal permanent shops. Sometimes the joists and beams are propped up so as to prevent the decaying roof from falling down.

the Keranadan families, there is at least one member who is working outside.⁹⁸ What should be added here is that the entire schooling system is structured so as to equip the students to utilize job opportunities both inside and outside India. This produces a high regard for English education.

The last ten years has witnessed a remarkable increase in the popularity of English teaching schools in and around Keranad. Today, in the township area, many school buses transport students to at least five English teaching schools. The demand for English education was at first mostly from the elite sections of Keranadan society, though there has been a relatively affordable school in the region since late 1970s. The interest in sending children to English teaching schools is a post-1990 phenomenon. Two-thirds of the households surveyed had children studying in English teaching schools. Such schools make it possible for Keranadan parents to equip their kids with language skills upon which to establish themselves in the computer software sector and other overseas employment-opportunities. Since mid-1990s, Keranad and its adjoining regions have witnessed the start of self-financing colleges that impart engineering, management and nursing education⁹⁹.

The influx of remittances is a relatively new phenomenon. It is only since 2000s, when engineers and nurses under thirty years of age migrated to Middle Eastern countries and the

⁹⁸The incorporation of Keranad into the global economy has accentuated some form of local inequality. During the fieldwork research, I have found that Syrian Christians, and to a significant extent middle-ranked Hindu castes such as Nairs and Ezhavas, have a definite edge in the control over the four income sources – agricultural land, commercial ventures, overseas remittances and government salaries. Barring very few exceptions, the dalits in Keranad have no access to any of the four major income sources. Living entirely from wage labor, the dalits reside either in a resettlement colony set up by the government or on unclaimed public land.

⁹⁹ It should be noted that the advent of private schools and self-financing colleges has transformed the economic situation of households. Most parents take out student loans for their children's education by pledging the family assets as collateral security. A failure to find a lucrative job inside and outside India, after having finished a professional degree such as nursing and engineering using money from a bank loan, can bring on a crisis situation. It is the moral responsibility of the students, to pay back the loan out of their future monthly income. Banks in Keranad, as a general rule, issue student loans in such a manner that the parents are responsible for the repayment and for any default. Since the early 2000s, unpaid student loans have started to emerge as the source of a cumulative financial crisis for some unlucky households.

United Kingdom, that Keranadan families began receiving substantial remittances from overseas. The same is the case with the remittances from the Indian metropolitan cities, particularly pertaining to the Bangalore-based software industries. There is a whole range of places where diasporic Keranadans work and earn income – London, New York, Singapore, Dubai, Bangalore, Chennai, New Delhi, Kochi, Thiruvananthapuram etc. It was, therefore, not unusual that many Keranadan households had at least one member working/studying in places where the H1N1 virus had become widespread in the first place.

When the H1N1 infection first appeared in Kerala, it was very much experienced as an “invader disease”. Everyone who initially became infected with swine flu had been part of a non-resident population working/studying in places outside Keranad. It should be noted that the 2009’s swine flu outbreak started during the vacation months – June and July – when many of the immigrant population of workers and students would return to Keranad to visit their relatives. Those who came in contact with those coming from H1N1 affected countries or Indian cities were identified by public health authorities in Keranad as at high risk of infection. During the early days of the H1N1 outbreak, the high risk group was comprised of the immediate family members of returned residents.

The increased fear over H1N1 in Keranad is particularly exacerbated by its proximity to Kodichal. The fear reached its peak when the students of a noted English medium school in Kodichal developed the symptoms of H1N1. The symptoms first developed in the students who returned from a study tour to Bangalore and Mysore. The students were referred to the H1N1 cell at the Kodichal government hospital and throat swabs were taken for conducting the confirmatory test at the state capital. The doctors of the hospital asked each and every student and teacher who went on the tour to collect medicines from the hospital. A boy from Keranad was among those who tested positive for this epidemic disease. What aggravated the epidemic crisis reaction was the mobilization and institutionalization of new medical practices in hospital premises and other public places. There emerged new kinds of protective mechanisms, for the most part instigated by public health personnel, which were directed at the protection and

prevention of the spread of the virus to other individuals and groups. Hospital-and home-based quarantine units were established for suspected and confirmed cases.

The opening of a quarantine unit and H1N1 cells affected the day-to-day functioning of the hospitals. There was a substantial decline in the number of patients who approached the hospitals for medical treatment. The patients also demanded masks and other protective equipments, which were being supplied by the government exclusively to the hospital staff for their own self protection. As the number of quarantined H1N1 cases increased day by day, the local people put pressure on their elected representatives to submit a memorandum asking to shift the quarantine unit from their hospital. Here the medical system itself becomes suspected of spreading the disease. Rather than protecting the surrounding population that it cares for, the hospital is seen as concentrating and drawing the disease to the local area. Such suspicions question the management competence of hospitals and of the medical system. Even the hospital staff starts to doubt their own systems of protection, by doing their best to avoid risky encounters. For example, doctors and nurses started to approach their patients with face masks and from a distance.



A mask wearing doctor consulting patients during the H1N1 outbreak in Keranad

The following account by a Keranadan taxi driver illustrates the socially constructed fear generated by the protective measures against H1N1.

“I didn't know what the problem was. I went to the hospital with a patient who was suffering from a respiratory disease. What I saw inside the hospital was an uncommon situation. One mask-wearing person was sitting in a stretcher, which is commonly used by severely sick patients. This person was surrounded by a team of mask-wearing nurses and doctors. The nurses were positioned at a considerable distance from the patient. Even though there was a lot of rush in the hospital, each and every one of the hospital visitors kept a distance from the patient. I was told by someone that it was a Swine Flu case. I previously heard about Swine Flu related deaths in different parts of the world. I realized with fear that this dreadful disease has arrived at our Keranad”.

This account articulates how the global connections are being embodied and commented upon in the fears that grip not just patients and doctors, but the wider population which is also giving meaning to this new epidemic disease. As people from all sections of society migrate in large numbers, these non-resident Keralites and their illnesses provide a way of commenting upon modernity's management of the forces of production and life. As a perceived product of the global movement of Keralites, the swine flu epidemic and the panic it generated articulated popular ambivalences about the incorporation of Kerala into modern global flows of people, commodities, culture and disease. In fact, it is the incorporation of societies into complex interdependent global economic, financial, and cultural systems that underpinned the proliferation of risks. Here I would like to refer to Ulrich Beck's conception of 'risk society' to demonstrate how Keranadan society was experienced as incapable of dealing with the threat H1N1 posed to its population.

Risk theory is concerned with “the ways in which awareness of large-scale hazards, risks and manufactured uncertainties set off a dynamic of cultural and political change that undermines state bureaucracies, challenges the dominance of science and redraws the boundaries and battle-lines of contemporary politics” (Beck,1998,p.19). Becks's theory of a risk society is characterized by 'irreversible threats' to the pursuance of everyday life (Beck, 1992). It “designates a stage of modernity in which the threats produced so far on the path of industrial society begin to predominate” (Beck, 1994, p.6). It is the experience and management of risk that

dominates politics, public projects and the experiences of order. “The time-space structure of the world risk society”, as Kesselring (2008) rightly notes, “is based on the functionality, efficiency and effectivity of large-scale infrastructures of transport and communication. The cosmopolitanization of modern societies, their processes of hybridization and cultural amalgamation are directly related to enormous flows of capital, people, goods, ideas and signs” (p.79). It is cosmopolitanism and the modern dangers it brings that are being embodied in the swine flu epidemic. It challenges the competence of local forms of modernity.

In the face of growing H1N1 flu cases, the government issued an order to shutdown several public places. People were asked to wear masks covering the mouth and nose in public locations such as city streets and shopping centers. Schools and colleges were shut down temporarily until further notice. There had also been the suspension of other group activities such as protest gatherings and strike marches. All shopping malls and public parks were instructed to stay closed for a stipulated period. Cinema halls and multiplexes remained closed for three weeks. These were the days of intense fear concerning H1N1 symptoms, and anyone with a runny nose or a simple cough was expected to isolate themselves from social gatherings. Swine flu related news and discussions dominated the public media and everyday discussions. A discourse of risk accompanied the spread of H1N1, with the state being increasingly incapable of protecting its citizens. The risk-averse behaviors expected from the population also envisaged a new citizenry where the people themselves were to be held responsible for their own protection. They had to wear masks, avoid strangers, and minimize social outings to public places. The duty of the state was to make people aware of how they could help themselves. To quote Lupton (2006), “as the discourse on risk proliferated more and more risk avoiding practices were required of the ‘good citizen’. Risk avoidance had become a moral enterprise relating to issues of self-control, self-knowledge, and self-improvement. It deemed people’s own responsibility to take note of risk warnings and act on them accordingly” (p.14).

I began my principal field work in Keranad (June 2009) at a time when the fear of a major H1N1 outbreak became a reality. The students of a business management school located ten kilometers from Keranad tested positive for H1N1. Those who brought the flu to the institute

– according to the Health Inspector¹⁰⁰ – were students who had recently travelled to Pune for a study trip. The management school, as required by the government, was temporarily closed and the students were evacuated. When I visited this management school in September 2009 the cleaning staff and security guards were in masks and they kept a distance from each other. The local people, mostly consisting of low-income groups, expressed anguish over the fact that the new institute has brought a dreadful disease to their locality. “It is the elites who pass the virus to the common people”, to quote one of my respondents. It is worthwhile mentioning here that this management school is a self-financing institution where only rich students can study. H1N1 thus becomes the carrier of new class tensions that have to do with the role played by education institutions in reproducing modern class relations. H1N1 is also the carrier of the external dangers inherent in the mobility and flexibility of Keranad’s emergent risk society. The external world is providing new sources of income and creating new kinds of social inequalities.

The people whom I met in Keranad were deeply anxious about an at-risk condition which emanated from a globally integrated social world they had themselves created. They were worried over the new types of fevers emanating from such an environment, making no exception for caste, class, or gender. However, knowledge of ‘at-risk’, and being anxious about it, did not give Keranadans any extra safety from the threat of epidemic fevers. Just as in Beck’s risk society, “they become anxious without being able to reconcile or act upon their anxiety” (Lupton, 2013, p. 69). Whilst this might be so with some, many were protesting and seeking to channel and give voice to those fears. As I will elaborate in forthcoming chapters, anxiety over epidemic fevers became a social problem to be solved through state action. To quote Beck (1992), “the commonality of anxiety takes the place of the commonality of need. The type of the risk society marks in this sense a social epoch in which solidarity from anxiety arises and becomes a political force”. One can find a very similar anxiety-driven situation in the case of the vector-borne epidemic diseases such as chikungunya and rat fever in Keranad. It marks the

¹⁰⁰ The H1N1 specialist groups at the government hospital were not managed by the doctors but by the health inspectors. A health inspector has a degree in public health and is assigned to the public health activities of the hospital. If a person comes in with swine flu related symptoms and meets a doctor at the government hospital, he or she will be immediately referred to one of the H1N1 specialist groups. The health inspector will inquire about the patient’s contact history during the last few months to determine whether he or she needs to be treated with medicines for swine flu.

emergence of a new kind of socio-political order, where the scientific management of society as a set of possibilities is part of the growth of a medical model that is internalized by the wider population to formulate their right to a certain quality of life and security.

Habitational Changes and Vector-Borne Epidemics

The possibility of ‘self-sufficient small family’ units emerged from the intensification of cash crop agriculture. The recent growth of remittance money has further institutionalized the nuclear family system and has produced a sharp increase in the number of housing units all across Keranad. The transition towards smaller families, and a reduction in the amount of land owned by each dwelling unit in the downhill region, as I will elaborate in the next section, has resulted in a waste dumping crisis. The construction of new concrete houses, without adequate garbage dumping mechanisms, has provided abundant breeding grounds for the *Aedes* mosquitoes – the vector carrying the chikungunya virus. The indiscriminate disposal of household wastes, along with the containers used for collecting latex from rubber trees, provides a congenial atmosphere for the spread of chikungunya virus. In other words, just as in the case of H1N1, the advent of chikungunya is linked to the integration of Keranad to the global economy. In elaborating this point, the following sections provide a brief description of the settlement and landholding pattern.

Nuclear Families

The first thing I want to say is that nearly all Keranadans live in houses that are mutually independent of each other. Except for a couple of roadside lodges where some of the workers’ families live, there is not a single apartment building that contains multiple housing units. In Keranad, the term “house” implies a singular dwelling-place with its own compound. Depending on the population density in the given area, the nature of the house compounds can vary. It can be termed a single-household settlement because only one family lives in a single compound. Approximately 60 percent of Keranadan households consist of one or two parents and their children. A few of them are female-headed households, where the husband died prematurely and the widowed wife lives in the same house with children. The remaining 40 percent consists of two groups. Firstly, families in which the parent(s) of one of the married couples also live in the

same household¹⁰¹. The second group comprises households with two adults who are married to each other. This group includes both young and old couples. Either they are young couples who do not have children or elderly parents whose children are away, after their own marriage or because of professional/study reasons.

The emergence of the nuclear family structure in Keranad has not been in accordance with what is understood as its 'established route' in the anthropological literature on Kerala. Those who have studied Kerala's transition to nuclear households – G. Arunima (2003) Christopher John Fuller (1976) – have suggested the shift in relations is due to the breakdown of joint-family structures. Among the Nair caste group of Kerala, they focused on the disintegration of the matrilineal exogamous joint family, the *taravad*. The joint family that bound together distant relatives split in such a way that property is no longer held jointly, and the *taravad* ceases to be the effective unit of residence. In their studies, the transition to nuclear households is seen to be the expected result of modernization which has produced more 'individualized' and atomized residential and property-holding units. The nuclearization of the Nair families occurred at the expense of the joint-family. To quote Fuller (1976), "Taravads have split up and modern households form smaller units"(p.123).

By contrast, the matrilineal or patrilineal joint family system never had a heyday in Keranad. Ever since the early years of settlement, Keranad witnessed families consisting of a married couple and their children. In certain cases the elderly parents of one of the adult couples also lived in the same family. Though in most cases the extended kin on both sides also lived in the same region, they all resided separately. What made the changes happen is the sharp decline in the number of children and the increased migration of the Keranadan youth to seek external, better employment opportunities. Two key changes have made today's situation so different from the past. Firstly, most present-day parents have only two or three children, while the equivalent figure for the 1950s and 1960s is seven to eight. Secondly, in Keranad, there had previously been a lot of mutual economic assistance and interdependence between families

¹⁰¹ I did not find, during my fieldwork in Keranad, a single instance where parents of both husband and wife resided in the same household.

belonging to the same kinship group. The initiation of cash crop cultivation was instrumental in the institutionalization of nuclear family structures by setting up more individualized household economies. The introduction of rubber and pepper, along with the influx of remittances, has increased access to the money economy which was often transformed into various forms of capital (e.g. land and merchant), something which made the nuclear family a more independent and sustainable economic arrangement. My survey showed that 60 percent of the under-thirty five Keranadans went outside for employment reasons. The following discussion of the landholding and housing details are based on a preliminary survey¹⁰² which I conducted during initial months of fieldwork in Keranad.

Size of Landholdings

Most of the residential areas in present-day Keranad were once part of big agricultural land estates owned by prominent families. Owing to financial reasons, ever since the late 1980s, some of those families started selling small plots of lands for residential purposes. A few of them, however, continued to hold their land in its entirety. Consequently, the concentration of land control is uneven in many parts of Keranad. The population density of a given area is, therefore, predominantly contingent on two factors: the elevation of the hill and the presence or absence of large landowning families. In downhill areas, where there is a greater number of houses, the compounds are clustered nearer one another. In most cases the total area of the land upon which a single housing unit is situated is less than one acre¹⁰³ and very often it does not exceed 10 cents or one tenth of an acre. A low wall or a small pathway will often separate two house compounds. Upon approaching the mid-hill parts of Keranad, the settlement pattern becomes less congested. A considerable number of the mid-hill houses have been located on medium-sized properties that are more than 30 cents. In such cases, the house compounds are

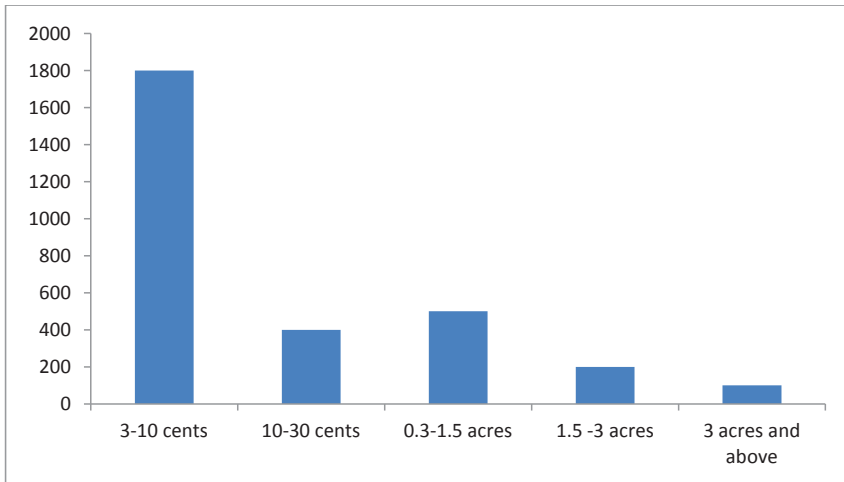
¹⁰² The survey covered 600 houses between January and March 2010. The selection of households was made on the basis of a random sampling method from a list of 3000 houses provided by the Keranad Village Office. The intention of the survey was to collect the basic household level details, including the dependence on healthcare services.

¹⁰³ The acre system, the unit of area prevalent during the British imperial times, is still officially practiced in Kerala. Approximately 40 percent of a hectare constitutes an acre and one acre consists of 100 cents.

integrated with the adjoining property owned by the residing family. On uphill parts, most houses are located in the middle of an agricultural land. Most of them are farmhouses surrounded by an agricultural field, maybe even the only house in the three or more acres of land.

Although the pattern of settlement largely correlates with the elevation of the hill, such is not always the case. Considerable stretches of land on the downhill and mid-hill regions of Keranad still belong to certain dominant families. A sizeable portion of the ‘livable’ parts of Keranad has therefore a low population density. In general, Keranad’s single-household settlements may be grouped under five different categories. The total of 3000 housing units is put into a bar chart in which different bars represents the number of households that fall within the five landholding categories.

Land holding details (household level) in Keranad

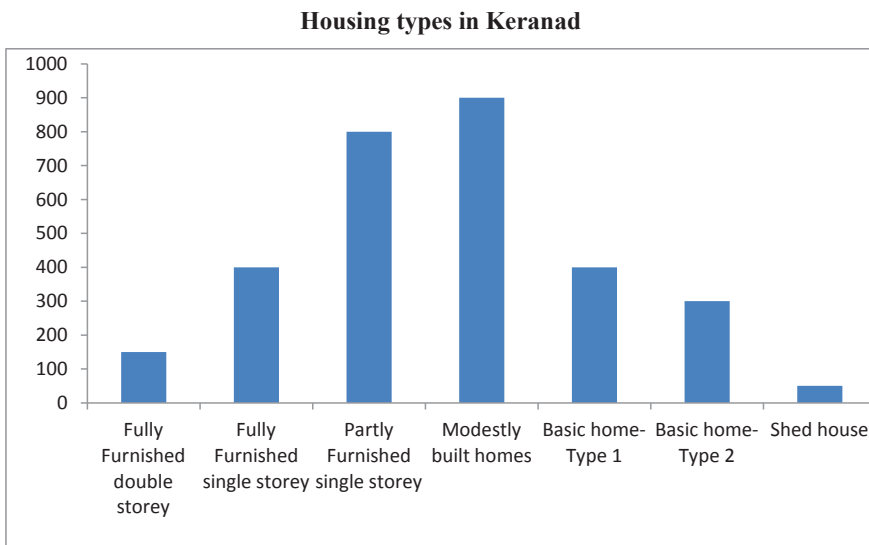


The above bar graph clearly indicates that 60% (1800 out of 3000) of the households have less than ten cents of land. The “3-10 cent” land category contains a wide array of caste and income groups, ranging from the dalit wage laborers living in four cent properties to

Christian and Hindu upper caste families who have multiple income sources, such as government employment, well-paid private sector jobs, and foreign remittances. A large number of moderate income households also live in properties sized less than 10 cents. Nearly two thirds of the houses in Keranad have been constructed during the last fifteen years, mostly in the downhill regions. The lion’s share of the newly constructed downhill houses belongs to those who had lived previously in the uphill or mid-hill regions.

Housing Types

There are about seven different housing topologies, from big double-storey concrete houses with well-furnished rooms to basic homes built with sun-dried mud bricks and clay tile or asbestos roof to small sheds made of cheap pressed wood, tin sheets and plastic covers. It is pertinent to note here that I could not find a single house, whose roof is thatched with braided coconut leaves – the most common roofing material in Kerala until the 1970s. The following bar chart illustrates the seven different housing types in Keranad.



The fully furnished single and double storey houses are built predominantly out of concrete, in accordance with an architect's plan. Many of them were brand-new lavish houses with state-of-the-art sanitary and electrical fittings. Nearly all these houses are over 1200 square feet, with three or more bedrooms and a fully equipped kitchen, bathroom and toilet that offer modern conveniences. The third housing type is the partly furnished single storey, which is a more dispersed form of housing. The houses are seen all across the mid-hill and downhill parts of Keranad. By 'partly furnished' I mean a varied collection of building types. These range from houses made predominantly of concrete to mixed constructions – dwellings made of concrete, wood, and clay tiles. These can consist of newly constructed houses and old houses that have been extended. The difference between fully furnished and partially furnished lies in the type of building materials used and how up-to-date are the sanitary fittings and electrical arrangements.

The fourth and the most numerous of all the seven categories – modestly built homes – is a feature of the mid-hill and uphill parts of Keranad. There are two different types of homes in this category. The first type consists of relatively new unfinished concrete homes. All these houses have a proper plan, designed and drawn by a professional architect. But house construction stopped abruptly as the economic resources of the family dried up, they have moved in without waiting for the building and furnishing work to finish. The second type among the modestly built homes usually includes relatively old houses. Except for a small number of new houses, these comprise houses built between the 1970s and 1990s. Though it is difficult to define precisely, these are “finished houses” in their own right, which were built to be lived in for the time being. These houses were built to the clear architectural plan of a local carpenter. However, unlike the unfinished concrete homes, such houses are endowed with no or little scope for future modifications. When it comes to the next housing category, basic homes, there are two types – Type I denotes 'colony-houses' that are concentrated in low-profile locations, and Type II indicates basic homes that are scattered all around the mid-hill and uphill regions. The former have a jam-packed settlement pattern and they have hardly any proper sewerage system or open

space to throw garbage. The people who live in these houses are lower caste Hindus and the economically weakest among Christians and upper/middle caste Hindus.

Ever since the 1970s, as township areas have developed in the flatland region, having a downhill-residence has become an esteemed thing in Keranad. Besides the improved shopping and transportation possibilities, the proximity to educational, religious and medical facilities has also contributed to the demand for downhill locations. From the early 1980s until the mid 2000s, there has been a considerable increase in the number of downhill houses. My survey showed that 40 percent of such downhill houses in Keranad belonged to those who had previously lived in the mid-hill and uphill regions. They are the ones who obtained new access to remittances, government salaries or business income. During the real estate boom that was initiated after 2006, agricultural lands and residential properties in the downhill regions doubled, tripled, or even quadrupled in price within a few years. The emergence of a jam-packed settlement pattern in the downhill region without adequate waste disposal mechanisms, like most other areas in Kerala, has clear implications for the epidemic crisis in Keranad.

The waste dumping crisis

Kerala has a geography and climate which highly favors the breeding of different mosquito species. The best conditions for mosquito survival – a warm and extremely humid climate with little or no wind (Wilks et al. 2006) – prevail in most parts of the state. Kerala has a lot of natural water bodies where mosquitoes can spend their larval and pupal stages. Abundant rainfall augments the prevalence of mosquito breeding habitats (Bollet, 2004), leading to high vector population in Kerala and thus a likely possibility of persistent cycles of mosquito-borne diseases. Barbara Chasin and Richard W Franke, two anthropologists who have worked extensively on Kerala, point out that the dispersed settlement pattern might act as a check against the outbreak and transmission of infectious and parasitic diseases. “The undifferentiated access to water led to an evenly dispersed settlement pattern that makes it easier to protect against water-borne bacteria and parasites. This means Kerala starts with an advantage in combating

infectious and parasitic diseases – the main diseases of underdeveloped areas”, to quote them (Franke & Chasin, 2000). What has happened in Kerala before the 2006-2009 chikungunya outbreaks corresponds to a settlement transformation. Though there were a lot of recorded outbreaks of epidemic diseases in the first half of the twentieth century, the second half remained relatively free from epidemics (Kerala Development Report, 2008). Except for the district of Allapuzha,¹⁰⁴ and a few coastal areas along the Arabian Sea, there is no pre-2007 history of large-scale epidemic disease outbreaks in Kerala. The case of Keranad attests to that.

Most parts of Keranad were among the areas where smallpox and malaria reached epidemic proportions in the first half of the twentieth century. The successive outbreaks of mosquito-borne malaria in the 1930s and early 1940s took a heavy toll of the Keranadan population. Out of the seventy five families who migrated to Keranad in the 1940s, only fourteen families withstood malaria.¹⁰⁵ The first hospital in Keranad was established in 1950 primarily for containing malaria epidemics. Advances in healthcare facilities and organisation eventually brought the epidemic diseases under control. By the late 1950s, the settlement pattern of Keranad became more dispersed, and this helped prevent any further epidemic outbreaks of infectious and parasitic diseases. There has been no major incidence of malaria or other epidemics until the 2007’s massive outbreak of chikungunya fever. Even though the state health department became alert to the global resurgence of chikungunya, and initiated a wide array of measures seeking to check the increasing mosquito density, a series of extensive chikungunya outbreaks took place in

¹⁰⁴ This district consisted of low-lying land with many lagoons, rivers and canals making it an epidemic prone area for many years. Besides water-borne diseases such as typhoid, cholera and dysentery, Allapuzha is also known for mosquito-borne diseases like dengue, elephantiasis, and malaria.

¹⁰⁵ As happened in other migrant settlements (Sajan, 2008), it was common to bury more than one member of the same family within a single grave. Chackochan, one of my ninety-plus informants in Keranad, recounted an incident from his life. After dragging the dead bodies of his younger brother, maternal uncle, wife and younger daughter into the grave, he waited for an hour for the death of his elder brother. The elder brother was dying of malaria and being already an infected person, Chackochan was not healthy enough to dig an extra grave. There were even cases in which more than six family members were buried within the same grave.

2007. The sharp increase in the number of concrete buildings and the waste dumping crisis in Keranad, something I will elaborate soon, made the situation vulnerable.



A concrete house under construction in Keranad during July 2013

The mosquito, *aedes aegypti*, which spreads chikungunya and dengue, breeds in fresh water. The proximity of mosquito vector breeding sites to human habitation is a significant risk factor for chikungunya as well as for other diseases that these species transmit.¹⁰⁶ The rise in the number of concrete buildings, which occurred as a part of the post-2000 construction boom in Keranad, paved the way for such a situation. *Aedes* mosquitoes are more closely associated with human habitation and use indoor breeding sites, including flower vases, earthenware, water storage vessels and concrete water tanks in bathrooms, as well as discarded plastic food containers and old tyres. It should be noted that, as compared to the erstwhile constructions in wood and clay tiles, concrete houses have a lot of spaces for the accumulation of stagnant water. Rubber plantations with their latex containers, along with cocoa and pineapple cultivation in the highlands add to the burden. Discarded coconut shells also provide a major breeding ground. The

¹⁰⁶ WHO. *Chikungunya Factsheet N°327*. Retrieved on December 12, 2011, from <http://www.who.int/mediacentre/factsheets/fs327/en/>

following recommendation was given by the Keranadan public health authorities to households: “It’s your own mosquitoes and only you can control them”.¹⁰⁷

Keranad, like most other places in Kerala, has recently had much unplanned urbanization. The present-day pollution problem has its roots in the inadequate disposal mechanism for household and town waste. Untreated wastes, particularly those produced by individual households, have turned out to be far more serious than anyone could have predicted. The dumping of household wastes and other solid wastes in public places is common. A stark increase in the number of households and the spread of urban areas has resulted in a growing pollution situation that threatens everyone. In addition, there is also the indiscriminate disposal of food waste from hotels and meat processing stalls in the waterlogged regions near to the slum-like *pettikada* area which has turned the town center into a mosquito-breeding centre, causing further epidemic threat in Keranad. Given the absence of an efficient and effective garbage disposal mechanism, the local panchayat in Keranad is not able to find a permanent solution to the waste dumping crisis. Given the dispersed settlement pattern, acquiring land in Keranad for setting up a waste treatment plant has been found to be difficult. With no vast unused areas, particularly around the outskirts of the towns, the Keranad village panchayat – like most local councils in Kerala – has begun to face the challenge of how to find a proper location for such plants. Attempts to establish decentralized garbage treatment plants have met with fierce opposition from local communities. No local government body has been able to establish a new waste disposal mechanism in their area of administration, unless they initiate it by coercion.¹⁰⁸

¹⁰⁷ Mosquito control awareness programme, organized by the public health wing in a residence colony on July 2010.

¹⁰⁸ When doing fieldwork, I visited some of the areas like Vilippilshala in the Thiruvananthapuram district that have witnessed days of violent protests against the long-existing waste treatment plant. What I observed during such visits was that the local people were quite convinced of the eventual malfunctioning of any government-run garbage disposal mechanism. They no longer have faith in the capability of existing public waste management systems to remain functional for a substantial period.

Many times I heard Keranadans express criticisms of already existing, solid waste treatment plants. They were almost unanimous in the view that waste treatment plants bring in huge piles of untreated wastes into local areas, producing constant foul smells and health hazards. That is why it is practically impossible to establish a garbage disposal mechanism in Keranad, or anywhere in Kerala, with the consent of the local people. As one senior official of the Kerala State Pollution Control Board noted, “Every time the question of setting up a garbage treatment plant came up, the locals responded aggressively and contemptuously by saying that they weren’t ready to ‘bear’ the trash of the others”.¹⁰⁹ Even in areas where there is a fully functioning plant, there have been reports of incidents in which the local people barricade trucks carrying garbage. Since 2010, people frequently expressed panic over the arrival of monsoon rains, or alternatively show relief that the monsoon fevers did not become as severe as the chikungunya outbreaks.



Trashes and garages dumped in a Keranadan roadside

The heaps of waste accumulated in the town center provide a congenial habitat for rats, triggering the fear of an imminent outbreak of leptospirosis. All through my fieldwork days in Keranad, even during those times when I was travelling far away from the town center, I saw roadsides and other public areas where trash was piled up. It has led to the contamination of the

¹⁰⁹ Interview conducted by the researcher on March 2010.

water supply and created perfect breeding grounds for mosquitoes and rats. The pollution of the existing water sources has also been caused by the increase in construction activity. The gravity of the situation can be gauged from the following statement of a local politician on 17 November 2011: “Most of the water sources in Keranad are badly polluted. The panchayat has no proper mechanism when it comes to waste management. The monsoon, likely to set in anytime now, will only exacerbate the condition. Unless the local government comes up with concrete action plans there will be more large-scale fever outbreaks”.¹¹⁰

Conclusion

In Keranad, according to my observation, the naturalness that was once ascribed to monsoon fevers has completely changed. Such fevers, as I elaborated in the introductory chapter, were considered unavoidable and attributed to extra-human factors. The risk involved, similar to Beck’s point regarding pre-industrial hazards, was not man-made and thus “externalizable” onto nature (Beck, 1996). After the chikungunya and H1N1 outbreaks, monsoon fevers are seen in Keranad as the eventual outcome of an “unnatural world” which boomeranged on them. Within Beck’s schema, the proliferation of risks is predominantly the outcome of human-made environmental hazards. The core argument is that “under the weight of environmental degradation, the rational skeptical eye of science is turned back on its own enlightenment foundations – now seen to be the foundation of our current problems, the result of industrialization and externalizing costs of pollution” (Gieryn, 1999, p.3). Like what Beck calls the boomerang effect, the risk of fever is “diffused through the society to all social classes irrespective of their wealth, prestige, and power” (Turner 1995, 221). Unlike early industrial era societies in which politics was centered on redistributive concerns and class conflicts, the politics in risk societies revolves around certain indispensable hazards which the industrial society itself generated. “It is an example of a situation in which, as Beck notes (1996), “the social production of risk involves hazards that are produced by the society itself, and that undermine the established safety systems of the state’s existing risk assessments”. Safety from the risk of epidemic fevers has become the concern of both the rich and the poor. No social class in Keranad is immune from these hazards, which in turn makes risk an encompassing democratic

¹¹⁰The Hindu, 31 May 2012

phenomenon. For instance, Beck (1992) has pointed out to the democratic nature of smog, even affecting those who generated it.

One of the main postulates of Beck's theory is that risks in the present-day world can only be minimized and never be entirely removed (Beck, 1996). The society has become driven by anxiety as people are deeply concerned about safety in the face of risks posed by modernity (Cannavo, 2010). The context of the epidemic threat in Keranad is different in many ways from the industrial society about which Beck wrote, and so the relationship between environmental hazards and the proliferation of risks is also different. However, Beck's theory is useful in analyzing the Keranadan situation. There is a widespread realization among Keranadans that, while attempting to maintain an urban way of life, they are disadvantageously positioned in relation to the risk of infectious diseases. Thanks to rising awareness, even economically well-off people had come to believe that their lives would be risked if monsoon rains had become torrential. They knew that something 'dreadful' like the chikungunya and H1N1 outbreaks between 2006 and 2009 was going to happen, but they were uncertain about how they could really defend themselves. The threat of an imminent outbreak of infectious fevers led to a period of intense social anxiety, with people in all sections of Keranadan society experiencing themselves as vulnerable to epidemic attacks. In view of the gravity and magnitude of the waste dumping crisis, and the socially constructed fear it generated, the public health machinery in Keranad initiated a wide array of home visits and awareness campaigns to avert the likely possibility of another epidemic crisis. The next chapter will discuss in detail different aspects of this new relationship between the primary healthcare system and the local community.

Chapter 4

A NEW SOCIAL GAZE

This chapter discusses the reconfigured ways in which the Primary Healthcare Centers (PHCs) operated in Kerala during the epidemic crisis. I explore the emergent situation in Keranad by using the theoretical lens of a ‘dispensary gaze’, which was developed by David Armstrong (1983) in his Foucault-inspired analysis of medical knowledge in twentieth century Britain. Foucault was studying historical transformations in what western medical practitioners saw and recorded during the eighteenth and nineteenth centuries. He was interested not in progress and an accumulation of medical knowledge but in radical transformations of the medical gaze as patients submitted to the “the objectifying surveillance and control of modern medical authority” (Bowler & Morus, 2005, p.445). The medical gaze only discloses to a practitioner who is trained what to see. The assumption is that doctors are capable of revealing the underlying truths about the human body (Silverman and Torode, 2011; Wilson, 2005). As Foucault put it; “medical rationality plunges into marvelous density of perception, offering the grain of things as the first face of truth, with their colours, their spots, their hardness, their adherence. The breadth of the experiment seems to be identified with the domain of careful gaze, and of an empirical vigilance receptive only to the evidence of visible contents” (Foucault, 1973, p.xiii).

An extended gaze

Foucault's book *The Birth of the Clinic* explores how medicine and its scientific gaze became part of social planning and urban redevelopment. New scientific notions of hygiene and contagion (harmful miasmas, pestiferous air, and polluted water) increasingly informed political debates that demanded new forms of sanitation, water, housing, urban planning, and changes in the everyday practices of citizens. Foucault considers the body as the “ultimate site of political and ideological control, surveillance, and regulation” (Wheatley, 2006, p.66). Hygiene was part of a disciplining of the body by a medical gaze that was simultaneously concerned with the health and quality of life of citizens as linked to population size and density. Foucault analysed the hospital as a model scheme that was diffused and adapted to urban space. Smaller hospitals

were created for towns and different parts of the urban environment so as to assist but also transform the culture, social relations and practices of the poor. *The Birth of the Clinic* also discusses the internal arrangement of a hospital, the use of single beds, the geometric layout of beds, the isolation of different patients, individual record keeping, and regular observation. The aim was to create a rationally controlled environment that would isolate illnesses, control a patient's health, and protect the wider society from infection. The hospital was not just a location where a cure took place, rather it was part of the cure itself. It then became diffused into the social body, a new institutional space that sought to be curative through its coordinated organisation of space, knowledge, medicine and hygiene. Within a Foucauldian framework, the "individualization of health care is a part of the 'biopolitics of population'; the attempts to control the health of the population as a whole by disciplining bodies" (Markula & Pringle, 2006, p.67).

The Foucauldian medical gaze is essentially a social relationship that takes place between the doctor and patient. This relationship was formulated out of new institutional spaces and practices along with new scientific discourses, methodologies, record keeping and forms of authority, that together created the historical emergence of the clinic. Modern doctor-patient relations are viewed as socially and culturally constructed in ways that incorporate but also extend beyond the bureaucratic and scientific organization and functioning of the clinic (Foucault, 1973; During, 1995). The incorporation of bureaucratic and scientific procedures, methods and knowledge into medicine and its institutions becomes treated as a historical socio-cultural process. Armstrong uses the example of the late-nineteenth century Edinburgh dispensary, especially the outpatient clinic treating tubercular patients. Instead of operating more or less within the hospital walls, the Edinburgh dispensary organized healthcare by "radiating out into" the community.

By viewing the dispensaries in this way, using the Foucauldian model for the dissemination of medical power, Armstrong demonstrates how medical power was able to grow and infiltrate society so as to reorganize people's understandings and their practices. His prime concern was the medical gaze being "extended out into the community, rather than the pure clinical subject who is brought into being in the health clinic" (Dyson and Brown, 2006, p.68). The new tuberculosis dispensary founded in Edinburgh triggered a scenario whereby the dispensary was no longer "a single immobile point" that provisions medical assistance. It rather

represented, to quote Armstrong (1983), “a new perceptual structure – a new way of seeing illness which manifested itself in different ways” (p.8). This reinforces Foucault's point that the private lives of the population became the object of this extended gaze partly by focusing on the relationship between bodies, and not just the body itself (Fox 2000). Similarly, following the implementation of NRHM in Kerala, there emerged a major transformation in the ways through which the PHCs connected to the local community.

It should, however, be noted that there is a significant difference in the medical context of the Edinburgh dispensary and the revitalized PHCs in Kerala that extended their gaze into the community. The Edinburgh dispensary was primarily concerned with tuberculosis – a bacterial disease that took a heavy toll on human lives until the 1950s. The first half of the twentieth century saw tremendous advancements in the treatment options for tuberculosis; immunization and effective anti-bacterial drugs were developed in a systematic way. The social conditions for tuberculosis – poverty and overcrowding – were substantially overcome in Britain during the earlier parts of the last century. Dispensaries therefore extended their gaze into the community at a time when bacterial diseases were coming under control, and the life expectancy of the British people was speedily increasing (Bryder, 1988). By contrast, the post-2000 medical context in Kerala is rather different. The extension of revitalized PHCs into the community occurred at a time when all of Kerala had come under the grip of viral diseases that consisted of both emerging and re-emerging infectious epidemics (Thresia & Mohindra, 2011). Though these epidemics were not the top causes of death in the population, nevertheless more people were dying of viral diseases, particularly the mosquito-borne viral fevers like Dengue and H1N1, than was the situation previously. As is well known, compared to bacterial diseases, modern medicine has no simple and effective cure for most viral infections. Viral fevers are usually treated symptomatically, with anti-pyretics, fluids and rest (El-Radhi 2009).

By using the example of Keranad Primary Healthcare Center (KPHC), I will demonstrate how PHCs were turned into a device “for making visible to constant surveillance the interaction between people, normal and abnormal, and thereby transforming the physical space between bodies into a social space traversed by power.” (Armstrong, 1983, p.10). Before demonstrating how the “dispensary gaze” underpinned the post-NRHM situation, I will elaborate on the primary healthcare centers in Kerala.

PHCs in Kerala: A brief introduction

The expected role of allopathic Primary Health Centers– the first contact point between a village community and a government health practitioner – in Kerala is quite similar to that expected in other Indian states. Established all over India in 1952 as part of the Community Development Programme, the PHCs were designed to provide basic curative care and preventative awareness (Ramachandran, 1997; Wiles & Rosenberg, 2008). Under each PHC there is a network of sub-centers, which have the “responsibility for tasks relating to maternal and child health, nutrition, immunization, diarrhea control, and programs aimed at the control of communicable diseases” (Panagariya, 2008). Compared to other states in India, Kerala witnessed a significant expansion in the treatment facilities at the PHC level – a process initiated in the second half of the nineteenth century and continued in various degrees until mid-1980s. However, the years between 1985 and 2005, for reasons which I will elaborate soon, witnessed a substantial decline in the quality of services offered by primary health centers. The following case study of the Keranad Primary Healthcare Centre (KPHC) provides an illustration of the ups and downs that have occurred in the public health care system at the primary level.



Keranad Primary Health Care center – a road side view

In the first two decades since the formation of Kerala as a separate state within the Indian union in 1956, KPHC was the only hospital in the whole village. The history of this allopathic hospital goes back to the pre-Independence period. It was established by the Catholic Church during the malaria outbreaks of the 1940s, and later became part of the state public health system.¹¹¹ The older generation in Keranad still remembers the days when they stood shivering in the queue at KPHC, waiting their turn for collecting “quina” – the antimalarial drug. It is worth mentioning here that most of these veterans, now usually in a debilitated condition, queued once again in large numbers in KPHC premises during the 2007 chikungunya outbreak. The malaria epidemic was brought under control in the 1950s. In the decade thereafter, KPHC was the sole government hospital in the region which provided organized allopathic care. Two more clinics opened in Keranad during the 1960s: an allopathic clinic run by a private Registered Medical Practitioner (RMP) and a government homeopathic clinic with an approved practitioner. There was no government ayurvedic clinic in Keranad and adjoining regions. Instead natural folk practitioners, authorised as hereditary healers, practiced Kerala’s indigenous medicine, mostly using locally available herbs and plants. During that time, they were very popular in Keranad among all sections of the population. What needs to be noted is that people depended on the RMP, homeopath, and natural folk practitioners only for minor ailments.

Though KPHC was technically a primary care center, practically it served as a secondary, or at many times a territory care hospital. KPHC was known locally as “Keranad Medical College” for it was the hospital of last resort for most Keranadans. Whenever an illness seemed out of control, everyone – irrespective of caste, class, and age – would go there. Only a few economically well-off Keranadans would go beyond KPHC to Kodichal, the nearest town, so as to access better treatment. The following excerpt from an interview with an eighty year old Keranadan woman documents the situation. “In those days, the government hospital was the only one of its kind in Keranad. Only on rare occasions did Keranadans go to Kodichal for medical needs. Everyone knew that the hospitals in Kodichal had better facilities. However, there was a widespread conviction that what was being told at the Keranad hospital was final”. Such a

¹¹¹As told by a 90 year old Keranadan, the picture of the priest who started the hospital was hanging on the KPHC walls for many years after it was taken over by the Kerala government. It was in the mid-1960s that the government, in its own words, “replaced their beloved priest with Mahathma Gandhi”.

situation continued all through the 1970s, though there were some signs of erosion in the quality of medical care delivered at KPHC.

In the years since 1980, two interrelated processes started to unfold all across Kerala. First, there was a substantial erosion of the public health care facilities and a notable expansion of the number of private hospitals. Though none of the existing PHCs actually closed down or moved to the nearest cities, severe infrastructural constraints and a decline in the quality of services offered made them unpopular among the people. The public health care system continued to remain in place, but it stopped working as a popular health care destination at the village level. A similar deterioration happened with state-run ayurvedic and homeopathic clinics. By the 1990s, nearly all middle and upper class families switched over to the private health care facilities. The primary health care center soon turned out to be a place where only the lower castes and older people without family support went for treatment. Olga Nieuwenhuys (1999), who did fieldwork in a village near Kayamkulam, southern Kerala between 1978 and 1980, observed a situation where there hadn't been enough medicines even for the basic diseases affecting children: "There are quite a few unpleasant diseases common among children such as scabies, lice, eye and roundworm infections that make them look unattractive. Medical treatment is freely available at the Primary Health Center, but for long periods there are no medicines available, especially against these common ailments" (p.67-68).

In one of their ethnographic studies based on Valiyagramam, another village in southern Kerala, Filippo Osella and Caroline Osella (2000) describe an allopathic PHC that was rebuilt in 1995. They write: "Almost nobody uses it when needing a doctor – although consultation is free – medicines must be paid for, making it more expensive in the long run than visiting a private doctor" (p.144). Private health care started to become more popular among manual laborers in Valiyagramam. This situation developed even though the Valiyagramam PHC had five sub-centers under its jurisdiction and a high presence throughout the village. Many veteran Keranadan doctors whom I interviewed consider the period between the late 1970s and mid 2000s as the worst time period for KPHC. They cite meager resources and budgetary allocations, organizational and managerial deficiencies, lack of adequate staff and medicines, and insufficient

medical equipment as the main reasons for the poor state of government PHCs. Though the decline in the quality of services offered at KPHC started in the late 1970s, it is only since the 1980s that it has experienced an accelerating downturn in the quality of primary care. The PHC in Keranad remained unpopular during the 1990s among those who sought primary medical care. The following remarks made by a former president of the Keranad village panchayat illustrate the situation: “From the late 1970s until mid-2000s, KPHC was more or less abandoned in favor of private hospitals. Except for a very few Kerandans, mostly comprised of elderly who had been deserted by their children, there was hardly anyone to be seen in the KPHC premises”.

Most people shied away from government hospitals for everyday health care needs because they would not get the service they were looking for, like free medicines and regular doctors. There would be a reasonable crowd in PHCs only at times when the children were to be vaccinated against certain important diseases – something that is not available in the private hospitals. According to the former president, regardless of the fact that decentralization and people’s planning initiatives did some good, no major change occurred in people’s perceptions of the primary healthcare center in Keranad. Likewise, I found out that even among the wage laboring class in Kerala there was an increasing tendency to depend on private clinics or hospitals. During the 1990s, many came to view even going to the KPHC as a shameful thing. While doing fieldwork I met many Keranadans between the ages of twenty and thirty who had never visited a KPHC, not even once. The dilapidated states of buildings, poorly maintained hygiene, rumors about poor diagnoses and treatment – all this contributed to such a situation.

During the mid 1990s a democratic decentralization of medical administration and responsibility which was part of a major political experiment took place in Kerala. The hope was to improve health delivery at the primary level. A government order of 1995¹¹² transferred PHCs and their sub-centers to local self-governments known as village panchayats. The decentralization drive in Kerala was accompanied by a state-sponsored People’s Planning

¹¹² GO.P 189-95/LAD, dated 18/09/95

Campaign (PPC),¹¹³ which later became the flagship programme of the Left wing government between 1996 and 2001. Through PPC, a greater part of the planning activities was formulated and implemented from below using local self-governments. To facilitate this, up to 40 percent of the state's budget was allocated to the local level – predominantly in the form of grant-in-aid – so as to improve the health and education sectors. This campaign drew extensively on the large network of voluntary organizations, especially the people's science movement, Kerala Sasthra Sahithya Parishad (KSSP), which had more than 2000 sub-branches spread all over the state.

One of the aims of PPC was to create a functional division of labor among different government levels which was appropriate to the health tasks that each level could best perform. The aim was to make the health services function more effectively and to ensure greater equality in health care outcomes with regard to income, caste, and gender (Elamon, Franke & Iqbal, 2004). One of the major institutional interventions during that time was the decision to transfer the Integrated Child Development Programme (ICDS) to the panchayat bodies. The ICDS, popularly known as the Anganvadi programme, had been functioning throughout India since 1975. The day care center or Anganvadi, as it is known, was intended to be the focal point of most of the community health interventions of the local PHC that aimed at women and children. Gupta and Ferguson (2005) consider the Anganvadi programme as an illustration of how 'governmentality' in the modern world is concerned with the welfare of the population. Anganwadis provide a wide range of services like supplementary nutrition to pregnant women and young children, generating health care awareness, immunizations, and preventive medicine for the lower income households. In an earlier article on Anganwadis, Gupta (2001) uses Foucault's work to argue that governmentality is "never just about control, it is most of all about a concern with the population, with its size, but also with its health, happiness, and productivity" (p.94). However, neither the initiation of PPC nor the transferral of Anganwadis to the local self-

¹¹³PPC brought together local representatives, government officials, planning experts and mass citizenry so as to formulate new development plans (Fischer, 2000, Thomas and Rajesh 2011, Issac 2000). The campaign, according to Issac and Franke (2002), "mobilized over three million of Kerala's thirty million people and resulted in bottom-up development planning in all 1052 of its villages and urban neighborhoods".

government bodies gave fresh blood to the lower level government hospitals like KPHC (Narayana & Kurup, 2000).

An extensive study (Varatharajan et al. 2004) conducted to assess the performance of PHCs under a decentralized government in Kerala showed that decentralization brought no significant change to the health sector. Out of the 990 village panchayats in Kerala, active support to PHCs existed only in a few cases. Decentralization brought no increase in the budgetary allocation to health; the study showed decreasing allocation by many village panchayats. Regardless of the little or no dependence on public health care facilities, the health statistics of Kerala remained fine during the 1990s. The case of maternal and child health is a good indication of this. The following table, which compares Kerala with the general Indian situation, illustrates this point.

Comparative Health Statistics in the 1990s	India	Kerala
Infant Mortality Rate 1994	74	13
Under Five Mortality Rate 1995	115	27
Birth attended by trained health personnel (%), 1990-96	94	34
Maternal mortality rate (per 1000 live births, 1990)	5.7	1.3

Source: Compiled from Kannan (2000)

In the first chapter, I noted the huge increase in household healthcare expenditure, and this is true of a large cross section of the society who are starting to depend on newly emerged private hospitals and clinics for nearly all their health care needs. The emergence of private health care in Keranad during the 1980s and 1990s was a multilayered process. Like most other parts of Kerala, the major expansion of treatment facilities in Keranad occurred in allopathy. Allopathic hospitals of all kinds – ranging from small-scale clinics to multispecialty hospitals – grew in Keranad and adjoining regions. Ayurveda and homeopathic hospitals, though on a lesser scale, also started to grow extensively in the private domain. A survey conducted by the researcher in November 2011 showed that 28 out of the 32 healthcare options are private hospitals and small-scale clinics. Most of them were located either in little buildings in the city-

center or tiny rooms attached to practitioners' private houses. The growing preponderance of the private sector continued in Keranad until mid-2000s and what then made the difference was a new centrally funded project called the National Rural Health Mission (NRHM).¹¹⁴ The influx of NRHM money drastically changed the way PHCs functioned at the village level. Thanks to the NRHM funds, infrastructural facilities in KPHC improved significantly during the 2006-2013 period. There has been a significant expansion in the facilities for out-patient (OP) treatment following the construction of a brand-new OP wing. The sixth chapter will provide an ethnographic analysis of some recent events in this new OP wing.



The newly constructed Out Patient wing at the Keranad Primary Health Center

The way the influx of NRHM funds changed the public health care system in Kerala is quite different to what happened in other Indian states. Kerala already has an extensive network of public hospitals and so an attempt was made to reinvigorate the existing health care

¹¹⁴NRHM was directed at 18 of India's more populous and economically backward states; those with weak public health indicators and poor infrastructure. Although not totally fitting this description, Kerala nevertheless received a quite substantial sum from the central government for improving its public health system. The central allocation for Kerala under NRHM between 2005-06 and 2009-10 was USD 157.57 million (Kerala State Report, 2011).

infrastructure. A district NRHM coordinator in Kerala described the situation as follows: “While most states in India used the NRHM money to build up an altogether new infrastructure, Kerala used the money to revamp its poorly functioning public health institutions, particularly village-level PHCs.” According to this coordinator, the government was driven to revive the PHC system because of the advent of communicable diseases, something which could not be combated readily through the private health care sector. Following the implementation of NRHM, there were serious attempts on the part of local self-government institutions to make medicines and doctors available free of cost during daytime hours. While I was doing fieldwork in KPHC, I even met a physician with an MD degree, who was hired using NRHM money; normally doctors employed at the village level are holders of only a bachelor’s degree in Medicine and Surgery. During these years KPHC also witnessed a significant improvement in laboratory facilities, which enabled them to offer more diagnostic services. Such changes turned KPHC into the most popular healthcare destination in Keranad. The transformation of the KPHC has been, at best, sporadic, driven by events such as the fever epidemics and changes in state policies and funding. However, as will be described in the next section, along with the significant improvements, it did result in the establishment of a surveillance regime for the monitoring of public health.

Viral Fevers and emerging surveillance

Increasingly, as it developed, the healthcare landscape of Kerala involved the widespread use of diagnostic laboratories, scanning centers, specialist clinics, and state-of-the-art ‘super-specialty’ hospitals equipped with highly qualified doctors. Despite these medical advances, which are important for treating life-style diseases and other complicated medical conditions, Kerala was criticized as lacking appropriate institutional resources to combat basic contagious diseases. For example, a study on leprosy services by Pandey and Rathod (2010), based on data collected during 2006-2007, showed that Kerala is behind Chhattisgarh, which is one of the so-called backward states in north India. In terms of the training of health personnel, diagnosis and treatment of leprosy cases, availability of counseling guidelines, maintenance of records and the mobilisation of local sub-centers, this north Indian state was judged better than Kerala. The diagnosis and treatment of leprosy in Chhattisgarh take place at the nearest primary health center, whereas in Kerala 90 percent of the leprosy patients have to travel to district hospitals or

specialists for diagnosis and ongoing treatment.¹¹⁵ The post-2007 context of viral fevers particularly exposed the inadequacies in Kerala's often widely praised health care machinery in combating epidemic diseases.

A further challenge facing epidemic management in Kerala is the lack of a general understanding of the reasons behind the outbreak of viral fevers. Mosquito-borne diseases like dengue have been prevalent in Kerala ever since mid-1990s. However, during the time of the first major chikungunya outbreak in 2007, many Keralites were either ignorant of, or not concerned about the causal link between environmental factors and epidemic diseases. An extensive household survey (2004) conducted by KSSP to understand the living conditions and people's perceptions in Kerala¹¹⁶ reported:

“While general knowledge about the environmental causes of the disease (eg, mosquito) was moderate and did not vary between economic groups, specific knowledge (Aedes) was very low, and found mostly among the affluent. A surprisingly large proportion of the people (50 percent) seemed to be unaware or sought to deny the link between mosquito and dengue fever, indicating the lack of effectiveness of appropriate health protection in the state, in spite of high levels of literacy” (Aravindan & Menon, 2010, p.106).

People I met in Keranad frequently link present-day diseases, including epidemic diseases such as chikungunya, to “contaminated” food items they import from the neighbouring states. Many Keranadans connect chikungunya to the indiscriminate use of pesticide in the vegetables produced in Tamil Nadu and increased consumption of imported broiler meat. Conspiracy assumptions also fill the air; the notion that the chikungunya virus is caused by an increase in fresh water residing mosquitoes was initially received with great suspicion. Indeed, in the early days of the outbreak, there were conspiracy theories regarding the advent of chikungunya in Keranad. It was suspected that pharmaceutical companies, in an “unholy

¹¹⁵Leprosy is no longer a major health problem in Kerala; however, the situation is now getting potentially risky and warranting government attention. For instance, in a surprise inspection, the public health team in Pathanamthitta identified 10 leprosy cases among 6770 migrant laborers living in crammed sheds at 561 locations in the district (The Hindu. 23 July 2014).

¹¹⁶This detailed survey titled 'Kerala Study-How does Kerala Live How does Kerala think' covered about 6000 households in all the fourteen districts.

alliance” with the doctors, had sprayed viruses of chikungunya into the atmosphere for the purpose of selling their unused medicinal stocks. I even heard conspiracy theories that linked the chikungunya outbreak with Pakistani terrorists and the US government. In the words of one of my respondents: “I didn’t initially believe in the mosquito theory. We have been seeing mosquitoes for so many recent years. So how come can we believe that some mosquitoes will cause an epidemic disease at the right moment. I have a feeling that chikungunya had come from and spread through the atmosphere”.

It was only after the community health interventions that Keralites began to understand that chikungunya is a domestically produced environmental hazard caused and spread by mosquitoes. Along with a state-level awareness campaign through print and visual media, the PHCs placed hoardings alerting local communities about the looming epidemic threat. The hoarding pictured below was placed on a roadside electric post to inform the people of the human and material causalities involved in the 2013 dengue fever. It asks a question: Should the same happen again in 2014? It calls for an immediate start to the eradication of the mosquito breeding sources.



Since 2009, a series of awareness campaigns and home visits by health care volunteers have also been instigated. These specific actions seeking to work with the local communities have clear parallels with the Edinburgh tuberculosis dispensary analysed by David Armstrong.

What made the Edinburgh dispensary model different from its predecessors is the community-based activities it promoted. Home visits emerged as a major priority of the dispensary. The purpose of such visits was to assess the needs of those who suffered from tuberculosis and discover the conditions under which they lived. Such dispensaries took the clinical gaze outwards into the community, and thereby brought forth a new surveillance regime (Tambling 1990; Prout 2005). According to Armstrong, “surveillance discovered disease in the community and this discovery necessitated further surveillance” (p.37). The dispensaries perceived disease in part as a social phenomenon, requiring a surveillance regime to control the behavior, morality and well-being of the population. In the next section, I will describe how a group of female health volunteers appointed under NRHM have become key players in the emergence of just such a new surveillance regime.

Accredited Social Health Activists – known as ASHA workers – are the field staff of the National Rural Health Mission. An ASHA worker is a literate, trained female community health activist, who is expected to work as an interface between the community and the public health system. As per the NRHM guidelines, one ASHA worker is designated for 1,000 persons. She must primarily be a resident of the village, preferably in the age group of 25 to 45 years. It is her duty to counsel women on preparing for birth, importance of safe delivery, breast-feeding, complementary feeding, immunization, contraception, and prevention of common infections including reproductive tract infections, sexually transmitted infections and caring for the young child. The monthly payment of ASHA workers varies, as they are paid based on their performance. For identifying each case, they are paid by the relevant PHC. Sometimes the ASHA workers get a special payment from the state government, for instance as a bonus during the Onam¹¹⁷ festival.

ASHA workers also act as key volunteers in pre-monsoon cleaning up activities that seek to eliminate the mosquito breeding areas. ASHA workers – along with members of Kudumbashree self-help groups, Anganwadi workers, voluntary organizations like the Nehru

¹¹⁷Onam, the annual harvest festival of Kerala, is associated with the memories of a golden prosperous age when the mythical king Mahabali (Maveli) ruled over Kerala.

Yuva Kendra, health department staff, and sometimes the elected panchayat ward member – visit houses with a cleanup mission. They conduct solo visits to destroy mosquito breeding habitats and to motivate home owners to engage in regular activities to this effect on their properties. A study published in 2014 (Menon et al.), based on a sizeable population in rural Kerala, demonstrated that ASHA workers can be successfully deployed to conduct large-scale studies on the prevalence of Non-Communicable Diseases, including the risk factors.

ASHA workers are also the linchpin of the government's effort to manage forms of reproduction through the supply of contraceptives – condoms, oral contraceptive pills and emergency contraceptive pills – at home. Indeed, each worker must prepare a list of all the eligible couples in her village, noting the preferred type of contraception. It is the duty of every ASHA worker to make this list available to the relevant PHC. In this regard ASHA workers fit into national policies aimed at controlling population growth and the size of families so as to improve the quality of life of the population. The bio-politics of modern nation states, which Foucault analyzed as the balancing of land, economic resources, wealth, education, health and housing with population size and growth, achieves its most immediate nodal form in Kerala with the ASHA worker. She monitors and seeks to regulate the fertility of women. The following is a case study of a typical ASHA worker from Keranad, who discussed with me the general duties and responsibilities of female healthcare workers.

Rajini – an ASHA worker

When I met Rajini, the ASHA worker assigned to the seventh ward of Keranad village panchayath, she was visiting the house of a pregnant woman. Such exclusive house visits are in addition to the general household surveys, which she does occasionally. The purpose of the visit can best be given in her own words: “I came here to find out the status of her pregnancy and inform the family members about various government support programmes. It's my duty to make sure that she took injections for the 3rd and 7th months”. Rajini has to report the pregnancy status to the public health wing at KPHC. What struck me initially was how she managed to get the family members to listen to her ‘health’ talk. Rajini, when elaborating on the various kinds of medical, nutritional and financial assistance for pregnant women under different government

schemes, updated the family members about the prevalent diseases in the seventh panchayat ward. The family was told about the various fevers and other common diseases. To my surprise, she pinpointed the exact households affected by chickenpox and dengue fever at that time. Rajini then invited the pregnant woman to attend an awareness programme scheduled to take place at the nearest Anganvadi.

Rajini finds her job very demanding, especially as she feels that KPHC nowadays operates predominantly in a community-centered framework. Junior Public Health nurses (JPH),¹¹⁸ the nursing professionals in charge of the KPHC sub centers and the “official”, government-recruited health worker, have now become community health coordinators. They basically coordinate the ASHA workers who are affiliated to KPHC. In Rajini’s own words, “Since JPHs are not recruited from the respective area – but appointed by the Kerala State Public Service Commission on the basis of an all Kerala competitive exam – they have serious limitations when it comes to working with the communities. Only ASHA workers can do health work the way people want it”. Rajini elaborated by telling me that as an ASHA worker she could enter into any house without prior appointment and “officially” inquire about the household’s health situation. Interestingly, the JPHs often recheck the household health reports submitted by ASHA workers before entering them into their data base. In the few days after Rajini’s visit, the pregnant woman received a follow-up phone call from one of the JPHs working at KPHC.

For several days, I accompanied Rajini to understand the daily routine of an ASHA worker. She claims credit for detecting some “hidden” ailments in the community. She cited the example of tuberculosis (TB), which is getting increasingly detected in Keranad. When carrying out house visits, Rajini asks about any cough lasting longer than two weeks. In one hilly neighborhood, we came across a potential TB patient having had a cough for the last twenty days. Rajini gave the person coughing a small cup to collect the sputum. She herself carried the sputum to KPHC’s laboratory for detailed investigations. It was apparent that Rajini has little or no time to travel around the entire panchayat ward for identifying cases that need to be reported

¹¹⁸The public health team of the Keranad Primary Healthcare Center consists of one Health Inspector (HI), ten JPHs, and 17 ASHA workers.

to the KPHC. Though she does conduct occasional random household visits, for instance before the onset of monsoon rains, she has to rely mostly on social networks to identify cases. Many of her case reports, including the details of all pregnant women and all children to be immunized, are done without visiting each and every house on a regular basis. As she herself is also a resident of the locality, she has a wide network of good social relations, which provide informal ways to gather the required information. Whenever she hears of a potential case to be reported, she makes a phone call to the concerned house to inform them of her imminent visit. She showed me a list that contained the contact details of all the households in her panchayat ward. Listed was also the cell phone numbers of at least one member of each Keranadan household. Rajini mainly used her “mobile network” to organize the dengue eradication campaign, especially the “Dry Day” campaign which sought to prevent water logging and to keep each house premise clean, especially clean of discarded items where water could gather.

A new panoptical order

The new measures that have been put in place in Kerala to prevent the outbreak of mosquito-borne diseases create in this district something similar to the ways in which the Edinburgh dispensary unleashed a new terrain of panoptical practices in the United Kingdom long ago (Prout, 2005). “The dispensary represented the Panopticon writ large,” Armstrong (1983) argues, “a whole community traversed throughout by hierarchy, surveillance, observation, and writing” (p.9). A series of such ‘socially encompassing’ surveillance strategies have come into prominence in modern public health interventions. Such a regime requires “the social body to be monitored to include both the normal and the abnormal” (McCallum, 1998, p.75). In addition to the ‘abnormal’ (i.e. the sick and deviant), ‘normal’ individuals also fall within the surveillance gaze of dispensaries. When this surveillance is extended into the community, the emphasis of health care interventions begins to shift from “those who were ill to those who were potentially ill” (Nettleton, 2006, pp.250-251). This is the emergence of what Beck calls the risk society, a society where regimes of knowledge and power exist to control potentialities.

The complex epidemiology and natural history of mosquito-borne epidemics makes their diagnosis and control particularly challenging, consequently encompassing surveillance over the society is the only option. Though my central focus is chikungunya and dengue, another mosquito-borne disease, filariasis, has become a problem in the area. According to newspaper reports,¹¹⁹ filariasis is increasingly prevalent among migrant laborers from the north Indian states working in Kerala's booming construction industry. The causative organism, microfilariae, is transmitted from one person to another through the bite of infected culex mosquitos, which breed in dirty water. Microfilaria can live in a person's body for many years before the symptoms become manifest as elephantiasis of the limbs. Sufferers and carriers may never recognize that they have been infected until it is too late. Filarial nematodes – namely *Wuchereria Bancrofti* and *Brugia Malayi* – can remain in human bodies undetected for a period up to 15 years. In an effort to eliminate the mosquitoes, the health department has instigated control measures such as frequent home visits to create awareness and to control environmental conditions around homes and work.¹²⁰ *Culex* mosquitoes survive mostly in stagnant and dirty water pools, so eradication of these breeding grounds is a high priority.

Kerala's health department also organized a Mass Drug Administration (MDA) program for lymphatic filariasis in April 2012, mostly through home visits by the ASHA workers, aimed at ensuring a break in the transmission cycle of the filarial parasite. According to Health Department sources, a large section of the population – except children under two years, pregnant women and sick persons – were given Diethylcarbamazine Citrate and Albendazole tablets through a door-to-door campaign. But difficulties were encountered. The ASHA workers had to be given instruction to combat popular misconceptions that filariasis was a poor man's disease. "In Kerala, we have never been able to convince people that everyone is vulnerable to the infection. MDA has remained the least popular public health programme of the Health

¹¹⁹The Hindu, March 7, 2013

¹²⁰The Hindu, Mass drug administration against filariasis begins, 27 April 2012

Department because the public believes that filariasis afflicts only the poor,” to quote a senior Health official.¹²¹

Following in the footsteps of the Edinburgh dispensary, medico-social surveys have become an integral part of the emergent medical panoptic order in Kerala. They allowed the KPHC to extend its gaze throughout the community. Speaking of medical surveys in general, Armstrong writes, “the survey [is] a synthesized gaze to relationships, to the gaps between people” (p.51). Indeed, surveys have been critical to the mechanisms of medical power and their expansion. The technologies of the survey, as Armstrong rightly notes, “established the possibility of removing the abnormal/normal divide. The survey classified bodies on a continuum: there were no inherent distinctions between a body at one end and one at the other, their only difference was the spaces which separated them” (p.51). In Keranad the community health team constituted by the KPHC has visited every household for larval surveys with an information sheet. Headed by the health inspector and comprised mostly of ASHA workers, their basic duty has been to collect details about those suffering from an epidemic disease; a separate section requires details of bed ridden patients, if any.¹²²

Assessing the condition of household waste management was and remains a major concern of home visits. Every health volunteer is expected to ask the household members about the ways in which household waste is disposed. There is a separate inquiry regarding the water sources – type of wells – within the house premises. These home visits are predominantly aimed at mosquito/larvae control and source eradication. When ASHA workers enter each house they inspect likely sources of mosquito larva breeding such as terrace and sun shades, water tanks, plastic vessels, rubber tyres, household appliances, flower pots, drainage, water containers, fridge, coconut shells, and any other possible water holding vessels. They ask the head of the

¹²¹The Hindu, Five districts being readied for filariasis elimination, 6 May 2014.

¹²²The information sheet also asked for information about three growing life style diseases – diabetes, high blood pressure and cancer.

household to eliminate all the stagnant water, however small it is. If mosquito larvae are found to be present in any of the aforesaid sources, the household members will be alerted so as to make them aware of the hidden danger. Often it is impossible to destroy all mosquito breeding sources and some will remain. These have to be noted separately in the information sheet.



A Health Inspector explains how mosquito breeds in an unused tyre during a home visit in July 2010

The Health Inspector collects the filled out information sheets from each surveyor and enters the data into the PHC's computer network. In accordance with the WHO guidelines for vector surveillance,¹²³ these data will then be used for index preparation. The following are the indices: House index (the percentage of houses infested with larvae and/or pupae) Container index (the percentage of water-holding containers infested with larvae or pupae) Breteau index: number of positive containers per 100 houses inspected. Regularly updated indices prepared by KPHC –similar to that of the Edinburgh dispensary – have become important for normal monitoring of the health of the population.

¹²³World Health Organization- *Dengue control* (n.d.). Retrieved on May 10, 2012 from http://www.who.int/denguecontrol/monitoring/vector_surveillance/en/

Surveying is not simply a device for ensuring ample surveillance over the community. Surveys of the Edinburgh dispensary type rather represent a fusing of the techniques of surveillance with the system of disciplinary power. A survey conducted by the PHC in Northern Kerala village¹²⁴, under the guidance of the community medicine department at the Calicut Medical College, is worth discussing here. I participated in organising this survey in 2010 and its aims were to identify the nature of chikungunya pains, especially its relation to various kinds of joint pains associated with rheumatism. This was a questionnaire-based survey among those affected by chikungunya who were over fifteen years of age. The following is a translation of some of the questions.

1. Which part of your body is affected with the chikungunya pains? How long do those pains remain in your body? If they are persistent, indicate the duration?
2. How severe were the pre-existing pains?
3. Has the incidence of chikungunya fever brought forth any change in pre-existing rheumatic pains?
4. How many days after the chikungunya fever before you restarted your daily routine?
5. Have the pains associated with chikungunya reappeared during the last seven days?

The questionnaire asked patients to locate the pain-affected areas in their body. The following diagram was also provided for people to pinpoint the joints that had swelling and pain associated with the chikungunya.

¹²⁴ When I started my principal fieldwork in Keranad in 2009, after the major outbreak of chikungunya had occurred in 2007, there were extensive chikungunya outbreaks in Northern Kerala. To understand the extent and nature of the epidemic crisis, I conducted a series of field investigations at the PHCs particularly the regions in and around the Kozhikode city.

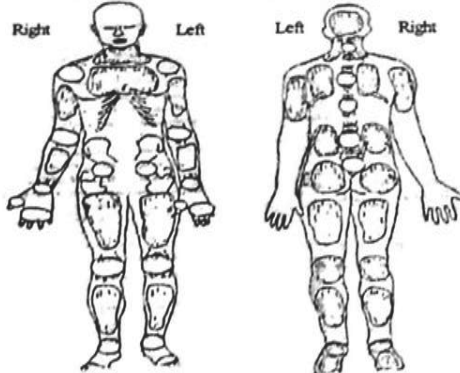
16. ചിക്കൻഗുനിയ പനിപ്പോലെയുള്ള നിങ്ങൾ ഏതു കാലയളവിനുള്ളിൽ പതിവ് രോഗികൾ ആയിട്ടുണ്ട്?

17. ഇപ്പോൾ കഴിഞ്ഞ 7 ദിവസത്തിനുള്ളിൽ ചിക്കൻഗുനിയ സംബന്ധമായ സന്ധിവേദനയും വീക്കവും പേശിവേദനയും അനുഭവപ്പെട്ടിട്ടുണ്ടോ?

ഇല്ല

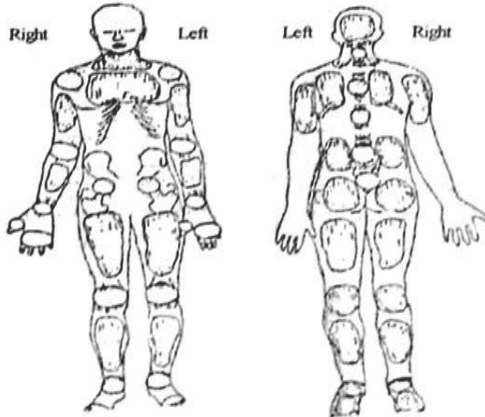
ഉണ്ട്

ഉണ്ടെങ്കിൽ വേനതെ '✓' കൊണ്ടും വീക്കത്തെ '+' കൊണ്ടും അടയാളപ്പെടുത്തുക.



18. ഇപ്പോൾ ഏറ്റവും കൂടുതൽ വേദന അനുഭവപ്പെടുന്ന ശരീരഭാഗങ്ങൾ അടയാളപ്പെടുത്തുക.

ഉണ്ടെങ്കിൽ വേനതെ '✓'
കൊണ്ടും വീക്കത്തെ '+'
കൊണ്ടും അടയാളപ്പെടുത്തുക.



(a) 4

When travelling with the surveyor I noticed the difficulties he faced in collecting the required information. When answering the questionnaire, especially marking the pain-stricken joints in the body diagram, many respondents recounted pains and suffering that could not be reduced to the prescribed boxes. Many of them questioned the very logic of giving separate boxes to pain when the pains associated with their persisting chikungunya were not fixed to a certain joint but moved all over the body. When they started to narrate their illness episodes, the

surveyor would often intervene and ask them to point to the specific joints marked in the diagram. He would tell the respondents that the “other” pains were not part of chikungunya, and thus could not be included. In a private discussion, the surveyor revealed that “making” the responses of chikungunya victims correspond with the biomedical understandings of pain radiation was very challenging. “Listing the pains that ‘float’ in the body for the correct box is a herculean task”, he asserted. The chikungunya-joint pain identification survey could be viewed as more than a tool for “the objectification of personal experience through its constant measurement and analysis” (Armstrong, 1983, p.51). It was also an apparatus of order and social control. As Armstrong has put it, “the survey, a mechanism for ‘measuring’ reality, could be transformed into a technology for the ‘creation’ of reality; the tactics of survey could make the operation of disciplinary power throughout a society more effective and more efficient” (p.43). I will take up the complexities in managing chikungunya pains for a detailed analysis in the next chapter in a subsection titled “The pain problematic”.

The social surveillance in managing H1N1

Before concluding this chapter, I will turn to a brief discussion of the “hospital-to-home-to-community” transition that occurred in the epidemic management of H1N1 between June and December 2009. By then, the community transmission of the H1N1 virus had become established and in that time the focus of public health interventions shifted from airport-based containment to home-based and community level management. The quarantine units in the hospitals remained in place, but they no longer constituted the dominant treatment option. Such a shift in the clinical management of H1N1 in Kerala, for reasons which I will elaborate below, unleashed a different mode of surveillance over the community. Like the Edinburgh dispensary, the social body was made visible and subject to the clinical gaze. Radiating out into the homes and the community became the central clinical management trajectory deployed around H1N1. The PHCs were a device “for making visible to constant surveillance the interaction between people, normal and abnormal, and thereby transforming the physical space between bodies into a social space traversed by power” (Armstrong, 1983, p.10). However, unlike what happened in the case of the mosquito-borne diseases, the H1N1 community-level interventions were fundamentally authoritarian in nature as they involved more penetrating practices of panoptical power. Popular explanations about the disease were silenced and home-based quarantine systems

were imposed to handle confirmed and suspected H1N1 cases. Notwithstanding the substantial gap in the epidemiology knowledge of the novel virus and insufficient information about the clinical complications of the infection, the state health department came up with ‘precise’ instructions for the people. The whole society was put under surveillance without being informed of the rationale behind these emergent modalities of clinical power. The following traces the ethnography of how this new surveillance regime worked in Kerala.

From hospital to the home

As mentioned in a previous chapter, the compulsory quarantine of all suspected H1N1 cases intercepted at the airport was based on the assumption that the transmission of the ‘invader’ virus into Kerala could be prevented by establishing a fool proof surveillance system at the entry point. The H1N1 cells at the three international airports worked on a 24 hour basis to screen arriving passengers and the government hospitals adjacent to the airports were equipped with separate isolation wards. Special wards were set up at all medical colleges to treat severe H1N1 cases. More than 100 screening and 14 testing centers – one in each district – were opened and separate ventilator facilities were made available. The throat swabs of those who had flu symptoms were taken for the confirmatory test which was being conducted at the virology institutes at New Delhi or Pune.¹²⁵ The absence of any major complications arising from the pre-emptive medication prompted the state health department to insist on immediate treatment without waiting for confirmatory results from the virology institutes. Two antiviral drugs – Tamiflu and Relenza – were used to treat the quarantined cases. Personal protection equipment like triple-layer surgical masks and gloves were provided to the hospital staff to avoid any further dissemination from the hospitalization of the confirmed / suspected H1N1 cases.

By September 2009, the airport-based controls had become outmoded as H1N1 ceased to be an ‘elite’ disease that solely affected the international passengers and was transmitted mostly through airports. Some of the Indian metropolitan cities like Mumbai, Pune, Hyderabad and Bangalore were affected by this epidemic disease on a major scale. The succeeding months

¹²⁵During the initial phase there hadn’t been any testing facility in Kerala and it was only on 18th August 2009 that the Central Ministry of Health and Family Welfare approved the Rajiv Gandhi Centre for Biotechnology at Thiruvanthapuram as an authorized diagnostic centre for testing the H1N1 virus.

witnessed the reporting of H1N1 among family members, friends, and neighbors of Keralites who were working in or had travelled to the major cities in India. Subsequently, the health department in Kerala, following an instruction from the central government, decided to stop the screening of passengers at the airports. Since community transmission of the H1N1 virus was well-established in Kerala, it was pointed out that there was no harm in discontinuing airport screening. The airport-based surveillance was found to be using up valuable monetary and manpower resources of the health department and the replacement of the same with help desks was expected to enable the government to focus more on community-level surveillance. Instead of subjecting all passengers to medical examination, they were to be directed to help desks, where all information on H1N1 infection, including general precautions, guidelines and testing/treatment facilities would be made available. Passengers would be encouraged to voluntarily report at the help desk if they were suffering from any flu-like symptoms¹²⁶.

The hospital-based quarantine system was subsequently replaced by home quarantine whereby only those having severe symptoms were admitted and those who had mild symptoms were asked to confine themselves to home after undergoing their initial hospital treatment. Patients with mild fever, sore throat, body ache, headache, diarrhea and vomiting did not require testing for H1N1 or administration of Tamiflu. After furnishing their personal details to the H1N1 cells headed by the health inspectors, they were given symptomatic treatment and allowed to go home. The assumption was that such mild cases could be treated at home by adhering to the preventive measures and maintaining alertness to the symptoms of the flu.

In the case of home quarantine, the suspected H1N1 infected person was asked to take the given medicines for a stipulated period of time. They were expected to contact the hospital only if the symptoms become severe or if any other complications arose. Their condition was to be closely monitored and re-assessed after 24 to 48 hours through the home visit of a PHC doctor. Those who were in home quarantine, in accordance with the guidelines issued by WHO, were given clear instructions such as the use of towels while coughing, regular washing of hands with

¹²⁶Such a move followed the realization that most passengers used to hide information about any mild symptom they might have, fearing undergoing 5-7 days of compulsory quarantine at a government hospital. Many nonresident Keralites who were quarantined at the government hospitals protested over the poor facilities provided to them.

soap water, increased fluid intake etc to prevent the risk of contracting the infection. Triple-layer surgical masks and gloves were supplied to use in situations in which regular contact was unavoidable, otherwise relatively closed contact with the suspected human case was advised. The people were told that this personal protection equipment would reduce the risk of infection if used correctly. The family members of the suspected H1N1 case were also asked to take medicines. It is interesting to note that the remaining family members were not given preventive medicines. The dosage varied as per age and body weight; nonetheless every family member was given the same medicine as the confirmed/suspected persons. It should be noted that though home quarantine was advised in most cases, a limited number of hospital quarantine units remained in place.¹²⁷

In the earlier days of the pandemic, even those having mild symptoms were tested and often testing was also done on demand. However, following the advent of home quarantine, the state health department decided to limit testing to acute and chronic cases. Testing all the samples was found neither feasible nor necessary as their total number was beyond what labs and microbiologists could handle. The fact that a single test costs about 3500 rupees to the government was also a limiting factor. The strategy adopted was segregation of cases at the preliminary level to ease pressure on the medical fraternity by avoiding indiscriminate testing. Patients with severe illness and feeling at high risk of flu complications needed to consult the H1N1 cell under the health inspector to determine whether flu testing or treatment was needed.¹²⁸ People were advised to remain at home and not to rush to hospitals and fight with doctors to test them for H1N1.

¹²⁷Compulsory hospital quarantine was followed only for serious H1N1 cases with severe symptoms in whom the high risk for sudden complications could lead to multiple organ failure, resulting in death. At an advanced stage H1N1 may also lead to viral pneumonia, which is more severe than the bacterial one.

¹²⁸The following are the statistics from the Kodichal government hospital as on 11 December 2009: Out of the 443 people screened for H1N1, 312 were given medicines and only 46 cases were sent for confirmatory test. Testing was usually conducted in exceptionally rare cases like the pregnant women to avoid possible complications.

The absence of any sudden complication or adverse side effects with the H1N1 drugs also acted as an incentive to discourage testing. It should be noted here that there existed a government monopoly in the administering of Tamiflu and Relenza. The only place where one could get access to these drugs was the H1N1 cells at selected government hospitals. Fearing the risks associated with their indiscriminate use, the private hospitals and pharmacy shops were banned from stocking the same. As the Health Inspector in Keranad rightly put it, “If the monopoly over the drugs against H1N1 is left with the private sector, there could be an indiscriminate supply within a short span of time. It may lead to a situation whereby the virus becomes resistant to the existing drugs. An eventual outcome will be mutation in the present virus, making the best available medicines less efficient”.¹²⁹ Considering the fact that swine flu symptoms resemble in many ways those of an ordinary fever, and given the panicky situation that existed on a global scale, the health inspector’s apprehension remained a strong possibility. Later, a few private hospitals were supplied the medicines from nearby government hospitals. It is interesting that when a State minister got affected with H1N1, he was treated in a private hospital.

From home to the community

The home quarantine system was soon found to be unworkable for two reasons. Firstly, unlike the case of chikungunya, the victims felt H1N1 was a ‘soft’ disease¹³⁰ as it involves limited bodily incapacity and persisting pains. Notwithstanding the overarching media hype and the frequent reporting of H1N1 deaths in Kerala, those who were put in home quarantine considered their imprisonment totally unnecessary. The softness of H1N1 fever and the availability of effective drugs prompted those who were quarantined at home to argue for an immediate release. The following comment by the headmistress of a school in Keranad sums up the situation: “We were told that H1N1 is a big disease, but the affected students, including those who were tested positive, were able to live without any serious problems. One of the colleagues

¹²⁹Interview conducted by the researcher on August 2009.

¹³⁰WHO increased the pandemic alert level of H1N1 to six due to its widespread nature, rather than the severity of the epidemic disease. The very fact that H1N1 spread to more than 100 countries during the first five months after its first inception in March 2009 made it a pandemic.

tested positive for H1N1. But she doesn't even have the problems of a normal viral fever". The headmistress was of the opinion that H1N1 is nothing more than a normal monsoon fever, and thus there was no need for home quarantine. Secondly, the sharp increase in the number of H1N1 cases in the major south Indian cities added to the vulnerability of Keranad, despite being a small-scale village tucked away in Kerala.

The disease spread through employees and students via whom Keranad was connected to major Indian cities. However, like most other regions of Kerala, Keranadans produce very few goods needed for local consumption and consequently food and most other items necessary for daily life are imported from other Indian states. These imported items reach Kerala through the major south Indian cities that were hit by H1N1. In addition, much of the wage laboring population in Kerala travels and works in other parts of India. Given that everyday life in Keranad was inextricably linked with the H1N1 affected cities, it was impossible to prevent the community transmission of the virus through putting the infected cases in home quarantine.

The shift that happened in the identification of the H1N1 risk group reflects the aforementioned limitation of the home-quarantine system and the need to put in place a community-based one. During the initial stage, those in the risk group were the immediate family members of the confirmed/suspected who had either a foreign or an outside Kerala connection. The risk group gradually widened to include those who had any sort of contacts with anyone who travelled from the H1N1-hit countries or places. For instance, when H1N1 was confirmed in one of the 50 students in a class, and five started showing flu like symptoms, all the remaining 44 were considered to be the risk group. The family members of both the confirmed and suspected students were also part of the risk group and were given medicines. When further community transmission of the virus had been identified, the criteria for being in the risk group further widened. The subsequent situation was such that if anyone in the school showed swine flu related symptoms, medicines would be started immediately without any tests. Even students in the nearby schools fell in the risk group if they had contacts with students in an H1N1 affected school.

By December 2009, the way H1N1 risks groups were identified underwent substantial transformation. What became more important was the travel or contact history of the suspected H1N1 person. For instance, when one of the teachers who accompanied students on a tour developed a mild fever and runny nose, his entire family members were forced “to become H1N1 patients” without any confirmatory tests. He told me he considered his fever symptoms bore no relation to H1N1. “Fever is very common to a person who moves suddenly from a hill station like Kodaikanal to Madurai, which is a hot place”, he said. He even suspected that the doctors might have had some special agenda in branding every common fever as swine flu.¹³¹ Apparently, a few days later H1N1 was diagnosed in a nearby school. This time there wasn’t any tour history, but four students who belonged to the same form tested positive for H1N1. The H1N1 cell at KPHC, after analyzing their contact history, found that the affected students met together for a movie at the town theater. The theater was identified as the point of transmission. I also met people who were identified by the H1N1 cell to have contracted the infection from funeral and marriage functions. The point I am trying to make is that mere participation in some recent group activities will drag a person into the risk group.

What needs to be added is that the political contestations over H1N1 fever took place in 2010 when the “invader” global pandemic of 2009 was turned into an internal, clinically manageable fever. The number of mask-wearers came down drastically, notwithstanding the daily news update about rising H1N1 figures. Public places, educational institutions and social gatherings – all returned back to the normal. Those were also the days when it was difficult to clinically differentiate between H1N1 and monsoon fevers. The virus had mutated and common cases of influenza were suspected and diagnosed as H1N1. Common respiratory illnesses associated with the monsoon fevers such as a cold and cough were turned into swine flu.

¹³¹The public health authorities, however, asked the school to close for a temporary period to prevent the further spread of the virus. The school management opposed the suggestion saying that an immediate closure would bring a permanent bad mark for their school. They preferred to isolate the H1N1 suspects by sending them home for quarantine. As reported by some parents, the teachers were very vigilant during those days and even a simple sneeze would not be tolerated. The school, however, closed for a week following the instructions from government. When the school reopened many students came wearing their kerchiefs as masks. The Health inspector from the KPHC conducted an awareness campaign on the reopening day and the school headmistress was advised to avoid study tours outside the State.

Tamiflu, the leading drug for treating H1N1, was made available in selected private hospitals and medical shops.¹³² The strengthening of the treatment delivery system and ensuring the availability of medicines became the prime government concern. The government mobilized its public health personnel at the grassroots level (PHC doctors, nurses, health inspectors, and ASHA workers) so that drugs could be dispatched and administered immediately.

Conclusion

The revitalization of the PHCs goes beyond the renovation and up-gradating of the existing village network or the starting up of new dispensaries. What has been put in place is a primary health care system which can also reach out into the community through non-clinical ways. PHCs in Kerala are no longer simply a place for the screening, diagnosis and treatment of the sick and deviant. More than pathologising local populations PHCs are also a form of social control. They are “located firmly with the community and [their] function is to identify, probe and monitor disease and its manifestation within the reaches of the community” (Powell, 2006, p.58). Besides ensuring that doctors see patients and that medicines are free or available at a very low cost, an institutional mechanism is devised to extend PHC activities to the everyday lives of people. The linchpin of such a mechanism is the extensive network of ASHA workers recruited from the respective communities. The PHC becomes a coordinating structure because, as Armstrong has put it, “illness was sought, identified and monitored by various techniques and agents in the community” (p.8). The Edinburgh dispensary functioned as an apparatus of surveillance by mapping not just the geographical but also the social space. The medical gaze shifted from an analysis of the microscopic detail of the individual body to the ‘undifferentiated spaces’ that lay between bodies, thereby forging a new political anatomy. The way the epidemic crisis was managed through the PHCs in Kerala during the NRHM period reflects this new political anatomy.

¹³² The Hindu. “Tamiflu made available at private hospitals”. 1 July 2010.

Chapter 5

THE PERSISTANCE OF CHIKUNGUNYA

Chapter 5 begins with a brief discussion of the situation that had recently emerged in Keranad related to the persistence of chikungunya since the 2007 outbreak. When I reached Keranad in June 2009, one of the first things I did was to walk around and talk to taxi drivers in a casual manner. That was because I had chosen a new starting point for my field investigations. The thing that most struck me in Keranad was an enormous increase in the number of auto-rickshaws, the so-called poor man's taxi in India. There were around 230 auto-rickshaws, a huge increase when compared to the 2004 figure of 27. An additional 45 of such taxicabs were stationed at a nearby junction, from whence they could come quickly to the Keranad town center. These three-wheeler cabs 'occupied' practically every nook and corner of Keranadan roads. Most roadsides were crowded with auto-rickshaws, and as a result, often I found it difficult to walk around the town. There were so many already on a trip, so many starting the engines for a trip, and so many returning to their stand after a trip – the sharp clanking, piercing sounds of auto-rickshaws redefined what is meant by noise in the town center.



A view from the Keranad town center

When I began observing how much the Keranadans relied on auto-rickshaws, I started to wonder. No matter where one lives there has been a discernible trend to avoid a journey on foot. Such a trend toward increased reliance on taxicabs to meet daily travel needs was very different to the ways auto-rickshaws were used some years back. In 2004, rickshaws were only hired as a specific need arose. Going to hospital following an unexpected medical emergency is a typical example. What I observed on June 2009, however, was strikingly different. The same people who had once travelled predominantly on foot were now having frequent auto rickshaw rides in and around the town center.

Soon I found that a good many Keranadans had no less than two rickshaw drivers on their mobile phones. So whenever they had need for an auto-rickshaw, a call could easily be made from home to the driver's phone. Since nearly every adult now has a personal mobile phone, it was possible for them to instantaneously arrange a taxi trip from anywhere in the Keranadan hills to the town center. As I observed Keranadans and their rickshaw rides, a clearer idea of the hiring patterns began to emerge. Only a very few Keranadans could single-handedly afford these taxicabs. Single trips up to 1.5 kilometers cost fifteen rupees while the cost of an equivalent bus trip is just six rupees. Depending on the hilly nature of the roads, there would be a further increase in the total trip charge. The dominant trend was for travelers going in the same direction to form themselves into groups and hire auto-rickshaws on a shared basis. 'Return autos', as Keranadans called it, was for many a way of economizing on travel costs. In the case of rickshaws returning to the town center after a trip, travelers are expected to pay only half the price. Perhaps the most intriguing aspect of all was what happened to a foot walker when approached by a return auto. Those already on the road who had started walking towards the town center would often suddenly change their minds and will find themselves in a moving rickshaw. That is why the roadsides looked mostly empty except for a few pedestrians. For most Keranadans, going to or coming from the town center completely by foot is now a thing of the past. Many times, I felt like I landed in "autonad"—the term used by a veteran Keranadan to refer to the changed scenario following the increase in auto-rickshaw numbers.¹³³

¹³³ The "auto-rickshaw revolution" is not exclusive to Keranad. While travelling across Kerala just before starting my doctoral fieldwork, I became familiar with several villages that had a soaring number of rickshaws. Largely as a result of the development of additional new settlements throughout the

Chikungunya and rickshaw rides

It was actually the remark of a Keranadan rickshaw driver that stirred the medical anthropologist in me. The rickshaw driver, responding to my question of “Why are there so much autorickshaws in Keranad?” said, “Given their declining state of health, nowadays those who have passed the age of thirty-five are unable to walk along the hilly roads”. He also added that the chikungunya outbreak of 2007 had “ruined forever” their ability to travel on foot. He was of the opinion that the Keranadan ‘housewives’, no matter how young they were, “hadn’t recovered at all from chikungunya”. “It is the women who are affected more by this continuing chikungunya”, the driver added. This driver had developed this understanding on the basis of his casual conversations with his passengers while driving. Though the driver made this remark hardly a month after my arrival in Keranad, I found a sense of truth in his remarks. While observing how Keranadans behave when they are approached by a return auto, many times I noticed a general feeling of relief crossing their faces. At many times it seemed to me that Keranadans had unanimity in their ‘difficulty’ to walk. Since I myself had numerous auto travels during those days, I had plenty of opportunity to overhear the conversations going on among rickshaw passengers.

Listening to talks about health that took place inside many moving rickshaws involved the articulation of a social consensus on and around people's “attacked injured bodies”. The memory of chikungunya has become embodied for some, internalised into their seasonal pains and everyday corporeal limitations. Two years after its outbreak, it continues to be collectively reinvented in Keranad through perceived and experienced bodily weaknesses and incapacities. What was being emphasised is the “particular, the existential and the subjective content of illness, suffering and healing as *lived* events and experiences” (Scheper-Hughes & Lock 1986, p.137). What has repeatedly caught my attention is that often when Keranadan women travel in rickshaws, there are repeated references to chikungunya. One comment that is often made about

habitable regions, and owing to the tarring of interior roads, even in village areas there emerged an enhanced potential for a thriving taxi industry. However, what kick started the phenomenal rise in the number of auto-rickshaws since the late 2000s was the advent of fuel efficient, better pulling diesel “Aappas”. A spurt in auto travel followed the introduction of diesel rickshaws in several villages that I visited personally.

chikungunya is that it produced a body more vulnerable to attack. Many times I heard Kerandan women talk about the epidemic infection in emotional terms, saying that it was the “worst disease” their bodies have ever encountered. Their shared sense of ill health was expressed mainly by certain common usages: *Ottum Vavya*, *Theere Sughamilla*, *Onninum Pattunnilla*. Such usages mean, in Malayalam, a state of complete exhaustion that comes from being caught up in a deteriorating bodily condition over a period of time. In essence there was a consensus about the overarching capacity of chikungunya, even during its persistence phase, to destroy the capacity of the body to take full control of itself. Most rickshaw travelers are in agreement over the reordering of the conditions under which people can be healthy, something which they present as an attack on shared well-being.

These “exhaustion narratives” in Kerala were recounted against a very real background of diseases and poor health conditions. When I have heard Kerandan women openly sharing their post-chikungunya diagnoses with fellow travelers, what also dominates their narratives are often the so-called life-style diseases that have been extensively prevalent in Kerala for quite a long time such as diabetes, hypertension and high cholesterol levels (Sivashankaran & Thankappan, 2013). When chikungunya did appear in their narratives, it was not just this illness in and of itself but its aspect as a ‘traumatic event’ that made their bodies vulnerable to ‘other’ diseases. Frequently, Kerandan women focus on the traumatizing changes in everyday life during the first three months of the outbreak, and in particular on the ways in which their control over their bodies was threatened. While I was listening to these personal narratives, it seemed to me that everyone sharing post-chikungunya diagnoses had adopted similar ways of formulating their experience or the trauma during the outbreak phase. This has parallels with Skultans’ analysis of how the shared representations of their bodies by Latvians were used to articulate a critique of the period of Soviet occupation of Latvia (Skultans, 2008). Skultans was interested in exploring how individual narratives of suffering actually become the shared interface to the country’s violent past, the traumatic experience of Soviet rule, leaving its mark on existing life in unexpected corporeal ways. “For Skultans, what is most important to recognize here is the extent to which people ‘in’ suffering are beset by an experience which essentially takes place as a persistent struggle to construct a positive meaning out of what is happening to them. On this

reading, a most distinctive attribute consists in the compulsive struggle to reconstitute a proper sense of cultural identity and social purpose under the brute force of events in which these are violated and destroyed” (Wilkinson, 2005, p.40). Though Latvians “appropriated a share of collective pathology for themselves”, and spoke of “a disorder within themselves and an inability to take control over themselves” (Skultans, 2008, p.8), they weren’t incapacitated totally and could pursue their daily activities. I found a similar disjuncture between the narration of bodily incapacities and the conduct of everyday life in the Keranadan case. What struck me most about Keranad was the coexistence of suffering narratives on *chikungunya* and the busy everyday life of a large number of Keranadan women.

Vulnerable bodies

In Keranad, many women participated in the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). This nation-wide programme “provides for the enhancement of livelihood security of the households in rural areas of India by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work”.¹³⁴ The number of Keranadan women in this employment project far exceeds that of men.¹³⁵ I met a couple of them when they were protesting against an increasing work load and compulsory mobility. What captured my attention was that the rules for accessing this kind of work have become much more demanding and time-bound, even though the employer is the local self government. The previous two main

¹³⁴ Kerala Gazette 2006. Retrieved on March 3, 2015, from http://old.crd.kerala.gov.in/pdfs/kregs25_8_08.pdf.

¹³⁵ Like many of the other villages in Kerala, a greater part of the Keranadan women were still confining themselves to household responsibilities in their daily lives. Most of the women whom I met in Keranad did resemble the widely assumed “ideal domestic women” of Kerala wielding authority within the household (Devika & Mukherje, 2007). While there is ‘domestic agency’ which gives them substantial say over the family affairs, many of these women were fully financially dependent on their husbands. Work by scholars inspired by feminist persuasions argued about a “gender paradox” in Kerala, referring to the fact that better social development indicators had not led to women’s emancipation. The best example would be the limited extent to which Kerala women have been able to participate in the labor market. In terms of female workforce participation, Kerala stood at 22.9 percent – one of the lowest rates in India (Sebastain & Navaneetham, 2008). The MGNREGS, however, showed an increased participation of women.

attractions of a MGNREGS programme, a relaxed work schedule and a work-site close to home, are disappearing. MGNREGS women are increasingly expected to work intensively for certain stipulated hours and to shift between various worksites. Instead of cleaning up and removing grass from the nearby roadside drains, which was often their previous task, they are now even expected to do agricultural labor in private lands. Most of them invoke the persistence of *chikungunya* while raising apprehensions about finishing the new work targets in due time. To quote a MGNREGS group leader, “If the government starts giving us hard jobs, what are we to do?” How can I go uphill for work with these “*Eattu Ninnu Thoottan Pattatha Pennugal*”? This local usage in Malayalam, means “women who can’t shit standing up”, and it implies that they have a weak body incapable of work. “We joined this employment project expecting a relaxed work schedule. We were all victims of *chikungunya* and still suffering from it. How can we go and work in such difficult terrains?” she asked.



Researcher with a MGNREGS work group

Worth quoting here are certain excerpts from conversations between the members of an MGNREGS work group in December 2011 about their “vulnerable bodies” following the chikungunya attacks.

1. “These days I am suffering from cough and sneezing, more or less on a consistent basis. I have this problem after chikungunya. Who knows if it is the beginning of some chronic disease?”
2. “The doctor has given me medicines for burning and itching in the eyes. Yet I’m not fully recovered from it, even after two weeks. Even a small cut can become trouble following the chikungunya outbreaks”.
3. “My mother-in-law got a wound in the fingers while chopping vegetables. Her usual kitchen-remedies did not cure the wound. Our housewives successfully applied such remedies for centuries. The fever outbreaks have affected the power of the body to heal itself”.
4. “Who said there’s no chikungunya these days? I know many people who experienced a partial loss in the ability to hear during the last few years. I have even seen Keranadans who say that this hellish fever has affected their sense of smell. They were linking it with chikungunya.”
5. “I was diagnosed with ‘pressure’ and ‘sugar’ (high blood pressure and diabetes respectively) in the recent laboratory tests. I met with the government doctor to review the results of my recent lab tests. It’s not that common for a woman of my age”.
6. “Even my father got affected with fever during the last monsoon. He was a very fit person and remained one among who escaped from the clutches of fever, before the advent of chikungunya.”
7. “After being affected with chikungunya, my grandmother developed an allergy towards hot water. She is also unable to bend her hand properly”.
8. “Have you ever noticed the increase in the number of cancer and heart attack patients in Keranad following the chikungunya outbreaks? That epidemic disease triggers all such big diseases”.

Pertinent here is Laurence Kirmayer's (1996) exploration of the multiple ways in which the "trauma shared by a whole community creates a potential public space for retelling". Though the ethnographic contexts Kirmayer explored differ significantly from that of the Keranadan situation, there are many relevant similarities and contrasts. Unlike the post-chikungunya condition in Keranad, Kirmayer didn't work in a disease-driven situation. His predominant concern was with the traumatic experiences of Holocaust survivors, suicides among the Inuit of northern Quebec, and victims of childhood sexual abuse. However, what makes him relevant to the Keranadan case is the depiction of a narrative landscape as a shifting terrain, constructed out of the 'personal' and 'social' dimensions of the victim's experience. What is especially relevant is the close relationship of collective memory and personal identity in the case of traumatic events¹³⁶. According to Kirmayer, "If a community agrees traumatic events occurred and weaves this fact into its identity, then collective memory survives and individual memory can find a place (albeit transformed) within that landscape", (pp. 189-90). Kirmayer is speaking of "a consensual reality and collective memory through which the fragments of personal memory can be assembled, reconstructed, and displayed with a tacit assumption of validity" (p.190). Collective memories, rather than being regarded as inert representations of past events, are capable of continuous reinvention in spatiotemporal terms articulated by different narrative landscapes.

I found Kirmayer's framework useful in explaining the modalities in which the collective memory of the chikungunya outbreak persists among Keranadans so as to be reinvented through a whole host of more recently diagnosed diseases. Especially relevant is his notion of a 'consensual reality' which the community creates for closing the wounds of the past and marking the road to the future (Kramer, 2007 p.185). What I saw and what I heard during rickshaw rides were suggestive of a complex interface between the 'personal' and 'social' experiences of the outbreak period. While it is a fact that personal memories of the first-time incidence of chikungunya have been in existence during the post-epidemic years, they now exist only in

¹³⁶ Relevant to the Keranadan situation is Kirmayer's assertion that "societies must provide cultural forms and occasions for remembering in order to allow memories to imprint without mental trauma, requiring the cultivation of a limited range of narrative forms within which one maps recognizable and mutually accessible stories about the past" (Clark, 2014, p.21).

relationship to a consensual collective memory. Chikungunya, as I will soon elaborate, allows people to reduce diverse forms of suffering to a common embodied shared reality of suffering. It is a community of common suffering which is being produced and reproduced through the reduction of diverse bodily ailments to chikungunya. In a context of fever politics, of increased fear and panic over fevers of all kinds, a new embodied unity and solidarity is being collectively created through shared medical understandings of the common source of individual suffering.

The pain problematic

It should be mentioned at the outset that prolonged persistence of arthritics-related joint pains, several months and years after the chikungunya attack, is not a totally unexpected situation. Even during the first major attack of the chikungunya virus among Keranadans in 2007, there was a near unanimity within the medical fraternity that post-chikungunya arthritics that affected multiple joints can leave a person debilitated for quite a long time. But there were many inconsistencies over what was predicted as the probable duration for persisting symptoms. In the initial months of the chikungunya outbreak in Keranad, doctors predicted a persistence phase ranging from six to twelve months. When many people returned to the same doctors with chikungunya-like symptoms in 2008, the patients were told that complete recovery can require one and half years. Things took a new turn in the following year when the 2007 victims returned back to their old doctors with persisting chikungunya. When I started my doctoral fieldwork in June 2009, Keranadan doctors were caught in a difficult situation. Complicating the situation ever further, a considerable section of the patients had a belief in some kind of causal connection between most of their new current illness and their first chikungunya attack. I had heard many cases in which people linked chikungunya to a multitude of different bodily imbalances such as cardiac infections, high blood-pressure, diabetes, and even to dental complaints. The ‘persisting’ epidemic disease has become an all-embracing medical category within which people’s problems with reproducing healthy bodies comes to be rationalised.

It is worth adding here that certain climatic changes have contributed significantly to the aforesaid reproduction of chikungunya. Maximum temperature in Keranad is usually to be about 34-35 degrees; but during 2009 and 2010 the temperatures of the summer months have risen to an unprecedented high of 40 degrees. Of course, this has caused a great deal of discomfort for

people and many became sick from it. Many Keranadans related their heat related discomforts (lack of sleep, tiredness, weariness, etc) to the persistence of chikungunya. What is even more interesting is that the number of chikungunya diagnoses mushroomed in the October-November months of 2010. What is normal during these months are warm, dry weather with sporadic heavy rains and thunder storms known as *tulavarsham*. But in 2010 the extremity of this rain made it almost like a monsoon situation. Atmospheric conditions became a bit colder and many people developed pain, particularly at the joints, within a few hours to several days after experiencing the unusual rains. I examined people's understandings and perceptions about these joint pains with great interest. These new perceptions of pain which were traced to chikungunya were also traced to what were called the "adverse climatic conditions". This means that whether it is too hot, too cold or a slight deviation from being the normal temperature, chikungunya emerges and manages to persist as a diagnosis that was read into a wide array of abnormalities within the body.

The following section is an appraisal of the problematical ways in which chikungunya provided an appealing popular terrain, on which many types of joint pains can meet. It is prepared on the basis of the interviews I conducted in Keranadan hospitals during the first phase of my fieldwork between June to October 2009. I use this ethnography of the situation to discuss the trajectories through which chikungunya became a 'collective' medical problem that could incorporate a wide array of bodily imbalances. Analysing the chikungunya-related talks happening inside the hospital premises is important, as it reflects how the pain experience of various Kerandans gets pooled in the social memory and further circulated through talks. Most of the doctors whom I interviewed had huge difficulties in answering the patients' questions regarding the persistence of chikungunya symptoms. An 'attacked body' consistently remains the focal point of their questions, with the diffused pain of persisting chikungunya all through the body. What dominates the discussions is a consensus of holistic bodily incapacity. Continuing attack of chikungunya is presented as traumatic and remains as the one and only reason for deteriorating bodily conditions.¹³⁷

¹³⁷ I also met a few people who are suffering from precise aches related to post-chikungunya arthritics, which haunts them. While discussing their pain experiences, this group demonstrate how they suffer from "incurable" and debilitating pains in specific body parts.

Reports of the joint pains that persist two years after the initial outbreak don't necessarily have very much in common. Alongside commonalities such as more pain in the morning, the problems are highly individual specific. The pain can move from one joint to another in a more or less frequent manner. Indeed, the 'moving pain' category has a high degree of heterogeneity within itself. However in some chikungunya victims, this pain moves from one joint to another in a yearly or monthly basis whereas I have met people whose pain rotates among different bodily joints within the same day itself. In some cases both men and women experience a kind of ongoing pain concentrated in selected joints; and these 'concentrated pains', for the most part, persist within the same bodily joints which were affected during the outbreak phase. There is little in common among chikungunya victims regarding the temporal patterns of symptom recurrence. While some of them experience joint pain on a daily basis, a great many manage to escape with just the seasonal recurrence of chikungunya symptoms such as fevers. What has placed the doctors – regardless of their different medical systems – in difficult circumstances is often this individual-specific radiation or transference of pain throughout the body.

The following is a general description of what often transpires: Upon entering a doctor's room, a patient will proceed to outline a miscellaneous collection of illnesses. Very often the clinician gets bombarded with larger and larger sets of seemingly uncorrelated symptoms. People start talking about open-ended and loosely defined pains and many of them can hardly be correlated closely with what is discussed in medical literature on the typologies and scales of pain. One of the allopathic doctors I talked with put the issue by wittily paraphrasing one of Samuel Coleridge's most famous lines "pain, pain everywhere, nor any drop to diagnose". He was entirely of the opinion that there is no point rushing into a diagnosis of these pains against the backdrop of the pain syndromes and conditions discussed in the medical texts. It seemed to him that a major part of these pains has been due to a sharp lowering of the pain threshold, particularly among women and the elderly. Most likely, as it seemed to him, men also have these pains, but rarely complain because they are less worried over it. When many Keranadans talk about such pain experiences, they are not seen as optimistic about a full recovery. Almost every doctor who talked to me was agreed on this point, that most bodily pains were being linked with chikungunya.

What is being articulated here is the “subjective content of illness and healing as events lived, having particular meanings for, and felt by the people” (Gochman, 1997, p. 401). I am using here the notion of “narrativization” – the experiential narration of illness and pain – as expressed by Byron G Good (1994): “a process of locating suffering in history, of placing events in a meaningful order in time. It also has the object of opening the future to a positive ending, of enabling the sufferer to imagine a means of overcoming adversity and the kinds of activities that would allow life experience to mirror the projected story” (p.128). Narrativizing is all about delineating illness through the eyes of the sufferer rather than the medical practitioner, or more accurately through how sufferers appropriate and rework the authorized public narratives of authorities and medical practitioners. Those who are suffering from sickness and pain tend to describe their illness as present in life. Such a situation prevailed in Keranad during 2009, where localized stories of pain were already in place. Doctors find themselves caught in a situation where, because the patients are still suffering from constant or recurring joint pain even in the absence of an epidemic situation, they witness what many regard as “unscientific” narratives of persisting chikungunya. This can itself be seen as another form of medicalisation where the population is created as caught in a collective fantasy, a shared pathology of misrecognition which medical authorities must correct. There is an empowerment of medicine in these official narratives that construct the wider population as removed from the truths about its bodies.

Many people, before formally beginning their conversation with their doctor, will declare themselves victims of chikungunya. Such a self declaration emanates from a popular understanding that chikungunya has disrupted forever the harmonious body balance that had existed in prior years. It is the equilibrium of the past – which is being embodied in the disorganised bodies – that is being resought. Patients’ self-diagnosis and self declaration of their illness is also noteworthy from the point of view of the higher morbidity statistics in Kerala. As I elaborated in the first chapter, Kerala has had significantly higher morbidity rates. Kerala, as remarked by a veteran allopathic doctor from Keranad, “is perhaps the only state in India where one could find a widespread incidence of both the life style diseases of the affluent West and the infectious diseases occurring usually in the poverty stricken African countries”. Despite a sharp decline in infectious and environmental (particularly nutritional) diseases, disorders classified medically as metabolic and degenerative have been consistently on the increase. The case of

cancer is a good example. According to various surveys, Kerala is fast turning into the ‘cancer capital’ of the country, with the highest number of cancer patients in India. “Out of every 100000 males, 133 persons suffer from the disease while in the case of females, it is 123 for every 100000 females”, as revealed by Kerala Chief Minister to the state Legislative Assembly on 27 January 2014¹³⁸. According to a newspaper report, the increase in the number of cancer patients during the 2005-2015 periods is 291%.¹³⁹ The case of diabetes is no different from that of cancer. Kerala is also sometimes called “the diabetes capital of India” with an occurrence as high as 16.2% - more than double the national average of 8% (Mohan et al., 2012). However, despite the extensive prevalence of nearly all the metabolic and degenerative diseases in Kerala, it is recently *chikungunya* that has provided fertile terrain for narrativizing.

What struck me most when I started doing fieldwork in Keranadan hospitals were the illness stories circulating among the consultees, including those who accompanied the patients. Many times, while waiting to see the doctors for interview, I heard Keranadans share with each other their stories of *chikungunya*, particularly the kind of bodily pains they are suffering from. In my experience, such sharing is something that virtually any Keranadan will do. However small these pains might be, there is a clear tendency to share it in public. Given the emergence of a community memory through narrativizing, any sort of joint pain – not just arthritics– is amenable to story construction even though the arthritics are not necessarily the result of *chikungunya*. Many times age-related arthritics are also represented as a post-*chikungunya* phenomenon; as are also the laboring pains of workers and peasants. There is a clear tendency towards constructing the stories of illness in medical terms as representing the collective shared suffering of *chikungunya* victims. As Good (1994) notes: “Stories of illness are told from person to person, recorded in medical charts as well as in community memory. No wonder such care is taken by a sufferer and his or her family in crafting a story that will represent the illness and its bearer in the most advantageous light” (p.206). Of primary concern to them, often to my surprise, was to narrate their pain in terms of its location while the body moves, its severity, and whether the pains are consistent or not. While these narratives assign a great deal of importance to regular pains, the issue of controlling irregular pains was also of greater concern.

¹³⁸ NDTV, Highest rate of cancer cases in Kerala: Chief Minister Oommen Chandy, 27 January 2014.

¹³⁹ Mathrubhoomi. “Prohibition of cow slaughter: challenges and consequences”, March 6, 2015.

While listening to the hospital-based discussions about the nature of the persisting joint pains, I observed that the varieties of pain experienced have grown substantially over a short period of time. Such an increase has been accompanied by a general rise in the frequency of hospital visits, especially those who were affected by the 2007 chikungunya outbreak. I have already mentioned that Keranadan doctors have been exposed to a strange array of ‘concentrated’ and ‘moving’ pains – something for which the doctors don’t have any ‘scientific’ explanation – during the post-chikungunya period. What makes such a growth in pain typologies of interest is that it doesn’t happen out of a ‘real’ increase in the diversity of sufferings. Rather it occurs as a result of the formation of what I would call a “social pain registry” in the community memory. By “social pain registry” I mean a socially constituted discursive space that acts as a platform for sharing pain experiences, which facilitates the exchange of illness stories among chikungunya victims. Such an exchange of suffering narratives has been ‘registered’ in the community memory, thereby providing the background for any further discussion regarding the prevalence of persistent pain after the 2007 chikungunya outbreak. This does not mean that Keranadans just randomly pick an already familiar pain category to represent their own sufferings. It means that known pain experiences can serve as a platform through which to represent and relate individual forms of bodily pain. The notion of a social pain registry represents more than a static space within which a wide array of pain experiences are contained; it depicts a dynamic space in which stories of recurrent pain are ‘registered’ in the community memory and provide a discursive terrain for conversing about what the persistence of chikungunya. My argument is that the formation of a discursive pain registry profoundly shapes the character of chikungunya as a persisting medical illness.

Many allopathic doctors claim that the persistence of chikungunya has more to do with people's psychological state and assumptions rather than the existence of any physical disease. This means that “vague symptoms”, as many Keranadan doctors say – are not the result of a particular individual’s objective experience. However, even three years post epidemic, many victims are unable to lead the life they led before. This and a widely prevalent notion that present-day doctors are less capable than their counterparts of previous times mean that the patients whom I met were sceptical about the clinical diagnoses and the approach being taken to chikungunya. Some of them hold the view that, in comparison to their own lived experience of

the persisting joint-pains, doctors have very little knowledge about the intricacies of this epidemic disease. When discussing the persisting pains among themselves, chikungunya victims generally express distrust in the medical system and note the wrong judgements made by many doctors regarding its persistence. It should be added here that no doctor in Keranad had any belief in the possibility of the widespread persistence of joint pains two years after the chikungunya outbreak being due to the disease. The persistence of chikungunya mounted a direct challenge to medical authority as the “authority of medicine rested less on the public approval of dominant medical theories than on public perceptions of the practitioner as the embodiment of medicine” (Allard, 2007, p.37).

The crisis and reinvention of medical authority

I am using the word “medical authority” in its Foucauldian sense here, as espoused in his treatise on the production of medical statements. To cite Foucault (2002): “Medical statements cannot come from anybody; their value, efficacy, even their therapeutic powers, and, generally speaking, their existence as medical statements cannot be dissociated from the statutorily defined person who has the right to make them” (p.56). An assumption underlying Foucault’s *Archaeology of Knowledge* is that truths exist in a wider setting and are constituted within a discourse formation. The medical statement and the doctor who is making it are in a mutually constituting relationship, but, what is more, the knowledge claim of the statement is premised upon the site from which they are produced – hospital or clinics – and their political, social, economic and cultural context. In other words, both doctors and modern medicine derive authority from the clinically produced ‘truths’ that exist in relationship to an exterior field of institutions and other competing discourses and authorities. Such truths, at the same time, are themselves a creation of the medical system which operates through the doctors and hospitals as it seeks to differentiate and yet relate itself to a wider context of truths, authorities and institutions. Lengthy explanations and illness stories by patients will often not be taken seriously as they are outside of the discourse of medicine in the language and context that they draw upon to be authorized and shared (Shogan, 1999; Haugaard, 1997). The Foucauldian medical gaze¹⁴⁰ is

¹⁴⁰ Foucault developed the notion of the medical gaze to describe the ways in which doctors “modify the patient’s story, fitting it into a biomedical paradigm and filtering out non-biomedical material. Doctors systematically look at some bits of the story and exclude others. A gaze is an act of selecting the elements of the total data stream available to our senses, and the way in which we perceive them” (Misselbrook, 2010, p.81).

not “the gaze of any observer, but that of a doctor supported and justified by an institution, that of a doctor endowed with the power of decision and intervention” (Foucault, 1973,p. 89).

Much of the doctor-patient relationship in Keranad can be analysed in Foucauldian terms as it occurs in a social-cultural space made up of knowledge-power relations where the patient has to submit to the doctor beforehand by accepting the latter’s authority and reputation. The hierarchical relation between the doctor and patient is, however, not exclusively underpinned by the scientific knowledge to diagnose illnesses and the technical licence to carry certain treatment procedures. The practice of medicine in Keranad also involves other informal and unlicensed forms of authority that are similar to what Albert Wahrhaftig (1979) notes in the case of Cherokee communities of eastern Oklahoma – “the existence of proper person-to-person relationships, since a doctor’s power is contingent on the wisdom and justice of his conduct toward others and a patient’s faith in a doctor is indispensable to his recovery” (p.264). Such a partnership between doctors and their patients, far from being a simple “reflection” of professionalised medical space in Keranadan society, is also a product of less formally regulated aspects that create other kinds of social relationships.

In order to practice successfully and to survive, a doctor needs to achieve popularity and respect at least among a particular section of society. The most relevant example of this is the case of “over-dose doctors”. During my PhD fieldwork in Keranad, I encountered certain allopathic doctors who, according to their own patients, are prescribing medicines in excessively high doses. I have been told by many Keranadans that they were given prescriptions for “effective” medication, but in an over-dose form that supposedly made it powerful. Most of my informants were aware of the health risks associated with higher doses but were driven by a powerful urge for a quick cure.¹⁴¹ It should be noted that the over-dose doctors are popular only among the wage laboring population, who want to get rid of all their incapacities and suffering so as to get back to work as early as possible so as to minimize their loss of income. What is

¹⁴¹ When interviewing the patients of the so-called over-dose doctors, I examined a lot of their medical prescriptions. Soon I realized that the prescribing of excessive doses is not always the case. The doctor often prescribes a course of steroids to resolve the problem quickly and the patients mistook this as over dosage.

interesting is that one “over dose doctor” had diagnostic skills which were highly regarded by many Keranadans, including the most well off sections of the middle class. However, despite his expensive lifestyle and clientele, none of them approach him for medicines.

Most people ascribe some kind of superior social status to doctors. The degree of the superiority is determined by a multitude of factors such as the system of medicine and the number of regular patients. In general, a successful homeopathic practitioner will have an inferior status compared to a popular allopathic doctor, even when there is not much difference in the amount of money they make. There is a common assumption that a good and successful doctor will be always busy with patients and he or she must be making a lot of money from their profession. Because good doctors enjoy a high degree of credibility, they can make a lot of money through private consultations. After putting in hours in a hospital, nearly all doctors have private consultations at their own home. They mostly live in lavishly built houses situated in prime locations. Some houses are palace-like with luxury gardens, ornamental waterworks, high hedges and a huge iron gate at the entrance.



A doctor's house in Keranad

In all cases the name, specialization and qualifications of the doctor will be visible on a nameplate fixed to the entrance gate. In most cases, a room is attached to the house with a separate external entrance that is used for medical consultations. In my field notes I wrote. “In addition to the pharmacological efficacy of the drugs prescribed, the survival of a doctor in the medical profession is a function of the better display of prestige before the people. A doctor has to generate a feeling among people that the elevated economic and social status he or she enjoys now is the result of a successful medical practice.”

A fundamental aspect of modern medical authority is that it cannot operate in a coercive manner. As Gallagher (1988) notes “medical authority, unlike the authority of the law or the authority of a military officer over subordinates, has no coercive power at its disposal and must base its claim upon the social prestige of the profession and its imputed desire to help the sick patient – using rational appeal, influence and persuasion on the individual patient” (p.402). In the context of persisting chikungunya, the medical discourse had lost much of its credibility and rational appeal. There was a discernible tendency toward doubting the judgements of doctors regarding the persistence of joint-pains. In many cases, the competence of doctors themselves came under question, as they failed to bring about clarity with respect to the different competing illness stories circulating among chikungunya victims. It should be noted, however, that such an erosion of credibility happens usually only in the case of chikungunya. In the case of other familiar diseases, the doctors were assumed to have greater control. When it comes to common ailments, there is a great deal of certainty about the symptoms and treatment. Regardless of the disease type, there exists a general idea as to what a doctor can do to alleviate the patient’s sufferings. Many people whom I interviewed had a clear idea about the doctor’s limitations in dealing with a specific disease. In Keranad, I received the following account from a middle-aged woman who compared asthma with the epidemic of chikungunya in July 2010, three years after the outbreak of the disease.

“My mother knows the two main situations under which her asthma becomes worse. First, if she gets exposed to a cold climate. That is why, whenever the winds of winter approach, she arranges a head scarf and jacket to protect her from the colder mornings. Second, she is aware of the fact that, the common cold will increase the seriousness of asthma. Whenever she feels the first symptoms of a common cold, she will go to a doctor and fix the issue at the earliest. Thus, even though not actually curable, it is possible for an asthma patient to prevent things from getting worse.”

“There is nothing hidden about asthma. If a child becomes affected, it is curable through medicine. But in the case of old persons, the issue of curability doesn't arise. The only thing an old asthma person can do is to avoid the situations in which the asthma gets worse.”

“What about chikungunya? Nobody knows from where chikungunya is coming, or when it will reappear. Even two doctors can't agree on its symptoms”

I recorded the aforesaid comment at a time when the public health machinery in Keranad shifted its focus from control to preventive measures against chikungunya. Following the directions of the State health department, the government hospitals were coming up with various initiatives to prevent any further outbreak of chikungunya or other vector borne diseases. However the following quote comes from an interview with an old Keranadan and it captures the sense that chikungunya cannot be eradicated because it lurks behind all other diseases and ailments.

“Doctors always say that one time exposure to chikungunya gives life time immunity to the affected person. They assure us that the persistence of chikungunya symptoms will last only a few months. But I have problems, even two years after the outbreak. Whenever some other minor illness comes, whatever it may be, the chikungunya symptoms reappear at a reasonable degree. This is August 2010. Just a few days back, I became affected with a dry cough. Whenever I do some vigorous coughing, chikungunya symptoms reappear.”

“What does this imply? Maybe chikungunya as such won't return again. But is it possible to live all through the subsequent life without any health problems? If chikungunya reappears in the case of a dry cough, what would be the situation if I became affected with some serious disease?”

What underpins medical authority is professional scientific knowledge, which endows medical practitioners with diagnostic/treatment skills and legitimacy that require the patient to be subordinate to the practitioner. With its authority and knowledge, medicine reconstructs bodies so as to pathologise them, so as to make them more normatively functionally deviant and in need of correction (Lyon & Barbalet, 1994; Bell, 2009). To quote Robinson (2009), “Medicine is the embodiment of a learned profession. A strong scientific foundation and long clinical apprenticeship make medicine esoteric for the ordinary citizen and create an asymmetry of information and authority between the physician and the patient” (p.16). This hierarchical structure, which is inbuilt into the medical relationship, came under attack in the context of persisting chikungunya. Such a situation challenges the medical authority and is similar to what Morello-Frosch et al. (2006) identified in the case of health movements: the patients “leverage the body and the embodied experience of illness as a counter-authority to challenge medicine and science”. Community-based employment schemes like MGNREGS enabled people with persisting chikungunya to share pain experiences and their widespread scepticism about the medicines prescribed by different doctors. Their willingness to challenge the manifestations of medical authority emanates from the caste and class context of those working in the employment guarantee projects and their dependence on the need to continually work.

Most of my respondents agreed that the persisting epidemic disease was incomprehensible to most doctors. They held the view that persistent chikungunya was a disease that transcended the clinical management and predictability of medical science. What emerged, therefore, across allopathic hospitals as well as within ayurvedic and homeopathic clinics, was the erosion of the legitimacy of medical statements as the scientific explanation of chikungunya. Under such circumstances, doctors were no longer seen as the sole legitimate speakers of medical truths. Given the patients are not just “receivers” of the doctors’ version, the typical framework of a doctor-patient relationship – “a doctor’s duty is ‘to see’ and a patient’s role is “to be seen”– didn’t work during the persistence phase. One of the most important aspects of the persistence phase is the fact that patient presented a wide array of pains which simply could not be “seen” by the doctor (Lind & Brzuzy, 2008, p.201).

On a few occasions I over-heard Keranadans discussing among themselves the competence of the medical system and asking “Haven’t you thought: do our doctors really know when these pains will end?” What had happened was that patients had experienced their doctors making many competing and mutually inconsistent interpretations of persisting pains, and patients became more certain that chikungunya escaped the categories and competence of medical practitioners. Such a situation led to the medical system being seen as not up to the mark, or simply inept. Sufferers, and those who accompanied them to the hospital, expressed much doubt over the competence of the medical system to alleviate their pains but also to manage the new kinds of illness that modernity can bring. What made the exercise of medical authority even more difficult in the post-chikungunya context was an erosion of the moral integrity of doctors. Many times patients also condemned their doctors by saying that doctors focused on chikungunya for their private economic benefit. Most Keranadans have the feeling that doctors take monetary advantage of the persisting joint pains after the chikungunya outbreak, that they do not have an interest in curing these pains but have an interest in their persistence. They were adamant that chikungunya was a fast money-making opportunity for the doctors. This moral and professional undermining happened even to doctors who had specialist degrees and high reputations.

In the following paragraphs, I will describe some of the ways in which Keranadan doctors sought to overcome the credibility crisis unleashed by persisting chikungunya. The chikungunya factor has continued to remain in the minds of Keranadan doctors and it keeps popping up into their diagnoses in a multitude of ways, especially when a medical practitioner finds it difficult to make an accurate clinical diagnosis, within the limited time at their disposal. Chikungunya is seldom the diagnosis given by doctors when dealing with complex cases. Rather it is frequently invoked as a quick all-encompassing and believable explanation for many different medical conditions whose cause is not immediately obvious. Explaining complex and challenging medical conditions in terms of post-chikungunya complications has the effect of saving doctor’s time by creating an authoritative acceptable diagnosis. During my principal fieldwork, I encountered situations on a couple of occasions where doctors protected their public reputations by interpreting the patient’s condition against the backdrop of uncertainty that surrounds the

persistence of chikungunya. Many doctors, with whom I talked, claimed that they are actually forced to play such tricks upon the patients which merely serves to encourage the popular perception. According to them, Keranadan patients – particularly the elderly and the middle aged women, the two groups that constitute nearly sixty percent of the total patient population– have a tendency to present their case before the doctor in a complex and detailed manner. They are highly emotional and are very much exaggerated in their expressions of pain. Often these patients are basically concerned about how the symptoms appear to them and all doctors find it difficult to re-diagnose and manage cases where patient’s have already to some extent self-diagnosed themselves through their symptoms.

There were instances in which doctors made assertions such as the following: “this is a special case of chikungunya.”; “all these problems clearly emanate from chikungunya”; and “this is a new form of chikungunya”. It is interesting to note the advent of new variants of chikungunya in Keranad during 2009 and 2010. These have diverse manifestations such as enlargement of the nose, sudden darkening of the body, and the emergence of bulges in the upper skin – which are diagnosed through an interaction between the patients’ representations and doctors’ interpretations. Within the ‘mystical’ category of chikungunya, many kinds of secondary elaborations are possible. Secondary elaborations were developed as a concept by Evans-Pritchard (1965) to explain the circular nature of belief systems and how certain escape mechanisms allow for the protection and reproduction of beliefs and the systems of authority that depend upon them. According to Evans-Pritchard, “the perception of error in one mystical notion in a particular situation merely proves the correctness of another and equally mystical notion” (p.476). Similar to what Evans-Pritchard observed in the case of witchcraft, oracles and other forms of magic in Zande beliefs, the elaborations around chikungunya constitute a coherent system of mutually supporting beliefs and secondary elaborations (Kwame, 1995).

Chikungunya is also used in a more diluted way where it is not the patient’s principal diagnosis or a causal explanation. During clinical consultations, patients are sometimes given the impression that chikungunya is still hanging around, so no matter what the doctors does, it will continue to create a multitude of relatively minor complications such as sub-clinical

diseases.¹⁴²Chikungunya gives doctors the opportunity to begin working out their own diagnostic styles of formulating a clinical case, by appropriating selectively from the patient's description of symptoms. Here, chikungunya provides the medical practitioner with a kind of filtering mechanism for making sense and intervening with the problem of over stated symptoms. After culling out the set of symptoms that are worth considering and can be easily explained with other diagnoses, often the rest will be attributed to chikungunya. Such a clinical diagnosis draws more and more of the population into a very pragmatic and time-saving approach to the clinical management of not-so-serious conditions. Doctors just diagnose and treat the symptoms that they think are important and put the remaining symptoms into the 'chikungunya box', for which there is only symptomatic treatment.¹⁴³ Whatever may be the type of explanation given to patients regarding their medical conditions, a great many doctors form hybrid diagnoses that combine certain clinical case formulations with people's perceptions about the constant persistence of chikungunya in present-day bodily imbalances. In this way, medicine also reauthorises itself by drawing upon popular self-diagnoses, which it then recodifies and gives back to the population. There are a number of circular feedback mechanisms where beliefs need to be treated as part of an ongoing process of medicine needing to re-consolidate its authority and persuasive hold.

Conclusion

In this chapter, I attempted to explain the social trajectory through which chikungunya managed to persist within a population during the years after its outbreak. Keranadans now attribute to the persisting epidemic disease a wide array of both already familiar and unheard-of medical conditions which they encounter in everyday life. Chikungunya has been transformed

¹⁴² According to the medical dictionaries a sub-clinical disease is "an illness that stays 'below the surface' of clinical detection. A subclinical disease has no or minimally recognizable clinical findings. It is distinct from a clinical disease, which has signs and symptoms that can be more easily recognized" (*Medicinenet.com* (n.d.). Retrieved March 14, 2011, from <http://www.medicinenet.com/script/main/art.asp?articlekey=5578>).

¹⁴³ During the early stages of the epidemic outbreak itself, various government agencies initiated campaigns to create awareness among the people about the new epidemic disease. Through these campaigns people were informed that there isn't any specific treatment or medicine against chikungunya and what is possible is to treat the important symptoms such as joint pain and fever.

into a hidden or latent potential trapped in the body that awaits release. It is released in all kinds of symptoms that are symptomatic of all kinds of processes in the social order. It is new kinds of embodiment that are being produced here, where the 'social' merges with the 'medical' as medicine increasingly takes over the management of the aching bodies of everyday life. It is as though the traumatic effects of the 2007 chikungunya outbreaks had been medicalised and paradoxically within a context that also questioned medicine's growing hegemony. What this means is that the epidemic disease was transformed into an embodied experience that rearticulates people's subjective social well-being rather than their supposedly objective physical health state. The doctors in Keranad, however, managed the post-chikungunya situation by stage-managing the diagnostic and treatment processes. I will explain this process in the next chapter, but the point is that it is medical authority which is being protected and elaborated out to encompass more aspects of everyday life as people increasingly have their forms of suffering reclassified in terms as chikungunya. The threat that a socially persisting epidemic poses to the medical authority is transformed into an opportunity to expand the medical profession and its governance of everyday life. The questioning of medicine also calls forth demands for even more medicine: better trained doctors and more doctors, nurses, hospitals and equipment. Here medicine feeds off critiques of itself, appropriating those critiques to expand itself whilst also appropriating popular self-diagnoses so as to bend these to sustaining other authoritative diagnoses. It makes official and unofficial diagnoses not rivals but complementary illnesses, and the concept of "sub-clinical disease" becomes crucial for allowing an over-layering of symptoms and diseases but also of different forms of knowledge, that of the wider population and that of specialised professionals.

Chapter 6

AN EMERGING MEDICAL AUTHORITY

In Chapter Four, I focused on the changing ways in which the PHCs in Kerala ‘radiated’ new forms of control, authority and influence into the community. In Chapter Five, I discussed the modalities through which medical authority expanded in the context of the persisting epidemic crisis. In this chapter, I explore the forms of sociality in the outpatient (OP) clinics and how a new sense of the “normal”¹⁴⁴ has emerged in the domain of medical authority. Using ethnographic material from the OP clinics at the Keranad Primary Healthcare Centre (KPHC), this chapter illustrates the ways in which the sufferers of persisting chikungunya have struck a particular kind of “distributory relationship” with the healthcare juggernaut via the medicines dispensed through the primary healthcare system. I found the situation anthropologically intriguing as it presented an alternative way of wielding clinical expertise and treatment which operated to contain and prevent those with chikungunya pains from transgressing outside the nexus of medical authority. A situation had arisen in which “doctors were no longer granted authority by the institution of medicine in quite the same way, and patients were no longer passive victims of that institutionalized authority” (Bell, 2009, p.12). Before elaborating on the destabilization of the previous order, I will discuss the two major purveyors of medical authority operating in Keranad: doctors with specialist degrees and doctors who possess the local notion of *kaipunyam* or gifted hand.

¹⁴⁴I am using the word ‘normality’ in its ordinary sense of a generality or common pattern. It is used in the same way as Emile Durkheim once used it – “a phenomenon is normal when it is generally encountered in a society of a certain type” (Aron, 1999, p. 76). It should, however, be noted that my usage doesn’t stem from the binary opposition implied within the normal-pathological distinction in Durkheim.

The influx of specialist medicine

The growth of specialities – an inevitable outcome of new developments in diagnostic technologies and the growth of medical knowledge – is a major hallmark of twentieth century medicine. Modern medicine, to quote Hyland (2011), is “based on a *modular* approach to the body. If the general practitioner (GP) cannot be certain of a diagnosis, he or she will refer on to a specialist (called the consultant), and the specialist will decide whether the particular part or system specialised in is at fault –and if so treat it” (p.8). What makes such growth important is that it has led to a situation where specialist doctors have a relatively better position in terms of clinical management than their generalist counterparts. There is a clearly discernible tendency in Kerala, particularly among the more affluent, to avoid general practitioners and to regard those trained in medical specialties as the appropriate doctors to consult. A bachelor’s degree is no longer considered adequate for being a ‘proper’ doctor. Many people, whom I interviewed, considered only those with specialized degrees as ‘full’ doctors. This is how one long time allopathic doctor in Keranad described the dilemma of those with just a bachelor’s degree.

“Those who obtain a BTech (the four year Bachelor’s Degree in Engineering) will become an engineer, those who finish a L.L.B (the three year Bachelor’s Degree in Law) will turn out to be a lawyer, but an M.B.B.S (the five year Bachelor’s Degree in Medicine and Surgery) makes him or her only a half-baked doctor. In order to become a full fledged Doctor, he or she should go for specialization and super-specialization.”

It is perhaps true that nearly every young MBBS degree holder in Kerala aspires to some sort of specialist degrees before starting medical practice. However, only very few MBBS graduates are able to get into the specialist degree programmes, though some go on to some post graduate diploma courses. If we use as a yard stick the number of years of clinical experience, there would be two categories of non-specialist doctors in Kerala. First, the relatively young MBBS degree holders who have failed in their attempts to pass the post graduate entrance examinations. Those who are left behind as non-specialists end up working as physicians at government PHCs, or as duty doctors in specialty and super-specialty hospitals – something that is increasingly considered to be low-profile among the medical fraternity. Under this category, I

also include fresh medical graduates preparing for post graduate entrance tests. The second category consists of veteran practitioners who have been able to establish a reputation well before the current ‘specialist age’. They maintain good clinical practice and have no shortage of patients through old reputations established by word of mouth. Nearly all of them are said to possess *kaipunyam*, which I will explain in the next section.

When I looked into the specialization in modern medicine more carefully, some interesting patterns appeared out of the apparent randomness. Some young MBBS holders pointed out that not just an MD in general medicine, but even an MS in general surgery was no longer considered adequate. There is now a focus on super-specialty degrees such as DM (Doctor of Medicine) or MCh (Magister Chirurgiae). These have almost become a starting qualification for handling even primary-level medical problems. I came across an example that involved urinary catheterization, a medical procedure used to remove urine from the bladder. This is a relatively common technique for alleviating bladder dysfunction and it involves introducing a thin, clean, hollow tube (the catheter) into the urinary bladder to inject or remove fluid. The initial placement of the catheter requires only minor surgery and up until recent times it was an exclusive domain of the general surgeons. But now, only those who have a super-specialty degree – MCh in Urology – are considered by many people as properly ‘eligible’ to perform a urinary catheterization. This is only one example of what is happening more broadly in the surgical domain, following the increasing proliferation of surgical specialists.

The popularity and trend towards specialist doctors is not limited to the allopathic system. Interestingly, although the non-allopathic systems are based on a holistic conception of the human body, homeopathic and ayurvedic doctors with specialist degrees are becoming increasingly popular in Keranad. I met a couple of homeopathic and ayurvedic practitioners in Keranad who are holders of MD degrees. I encountered this at a government ayurvedic hospital, located just five kilometres away from KPHC. This healthcare centre has been in existence for more than five years, but its poor infrastructure and reputation meant that it did not have much popular appeal. However, during the 2009-2010 period, the hospital changed suddenly. A female doctor, trained in ayurvedic medicine from a government medical college, took charge of the OP

clinic. She wasn't a native to the area and even her speech was different from the local dialect. But within a short span of time, a rush situation developed, with nearly all her consultees being women.



A multi-specialty hospital in Kerala

What makes the case particularly interesting is the fact that allopathic specialists—obstetrician/gynecologists – had up to that time developed a clear lead in the handling of female-specific health care needs. Since the early 1990s, pregnancy and birth-related issues in Kerala have been dealt with more or less exclusively in allopathic hospitals. Despite this historical tendency, the new and young ayurvedic doctor managed to attract a large number of patients to her clinic. Even though child births still continued to take place at allopathic hospitals, many women started consulting the doctor during the pre-conception, pregnancy, and post-delivery stages. Many of them had previously been regular clients of a gynecologist in a nearby private hospital. I also saw middle-aged and elderly women who came to the hospital to seek remedy for their age related complaints. When talking with them, I gained the impression that the major reason behind her popularity was the fact that the lady doctor had a specialization in women's health. There has been a widespread conviction that the specialized degree would enable her to prescribe the “correct medication”, something which would facilitate a speedy recovery. “Well,

she is an ayurvedic doctor. But because of her specialist degree she could give *kashayam* (herbal decoction) and *choornam* (herbal powder) having quick effect, like that of allopathic medicines”, to quote one of her elderly patients.¹⁴⁵

***Kaipunyam* or gifted hand**

Despite the general tendency of people to favour specialists, another aspect of the health care provision in Kerala concerned the popularity of certain doctors who had only a minimum qualification – a bachelor’s degree – in their medical CV. Lacking the authority of a specialist degree, they were said to make up for it through exceptional powers or qualities that made them more qualified to treat patients, and to establish themselves as popular clinicians. These so-called “good doctors” are regarded as having a “gift” or ‘special power’ for diagnosing symptoms and then curing the most difficult and persistent diseases. Such practitioners have personal charisma which comes from the sense that they have *kaipunyam* or what can be translated into English as ‘gifted hand’.¹⁴⁶ This is a special power that provides these doctors with extraordinary healing powers but also higher status compared to their counterparts. Their authority and charisma derives partly from the professional qualifications and expertise that they have built over years of clinical experience, but also from their perceived possession of certain kinds of extraordinary capacities that include good diagnostic abilities, steady hands, acute intelligence and perception, etc. Such folk understandings about good doctors, however, in no way imply that they possess some sort of magical healing power. In no way is the special power of such popular physicians taken as a sacred authority – in the sense that someone might ascribe to them a kind of godliness.

¹⁴⁵A very similar situation was observed by Murphy Halliburton (2009) with regard to specialists of ayurvedic psychiatry in Kerala. Halliburton found that “people in Kerala are reporting increasing time pressure due to contemporary work regimens with the consequence that they say they have less time to undergo these lengthier, non-abrasive therapies” (p.15). Under pressure to speed up the treatment process, ayurvedic psychiatrists have had to reformulate some of their practices and therapies, for they cannot afford to strictly follow what is being prescribed in their alternative medical texts.

¹⁴⁶In their study of the health commodification and the social relations of healing in Srilanka, Nitcher and Nordstorm (1989) discuss a similar Sinhalese notion – *Atgunaya* or the power of the hand. *Atgunaya*, to quote from the study, “refers to a gift of healing a practitioner is credited as having, irrespective of the medical/healing system to which they belong” (p.377).

Rather it only means that people impute an adaptable capacity to them, to offer the best treatment within the limits of the specific medical system to which they belong.¹⁴⁷

Kaipunayam is evidenced in the kindness and generosity of these doctors towards patients which generates trust and loyalty by patients towards them. Their exceptional status appears to emanate from the premise of an expert therapist who uses institutions, natural skills, observation and knowledge in the right combination at the right time. Vineetha Menon (2002), who did ethnographic research among a tribal group in Southern Kerala, discusses a type of *kaipunyam* –locally known as *kaiguna* – that worked in specific illness contexts. This ability is bound up with the personhood of such practitioners and their perceived qualities of being “compassionate, kind and dedicated”. In this regard Brody (1992) suggested there are three components of a physician’s power: aesculapian which emanates from their knowledge and technical skills; charismatic is based on a doctor’s personal traits; and social aspects derive from the high status and reputation that doctors enjoy in society. The ‘special power’ of certain doctors in Keranad is a mixture of these qualities, for it is primarily an outcome of their social status, professional qualifications, knowledge and personal charisma developed over time and experience. Acquiring the status of a good doctor results from an appealing use of professional skills over years in conjunction with public testimony. The doctor must be able to put the better-informed patients at ease with the exercise of his/her medical power and through forming a social relationship that results in *kaipunyam* that few doctors can match. As Brody noted in the *Stories of Sickness* (2003), “patients themselves know better. When beset by illness they seek out the physician who seems to them the most powerful person. The physician who uses power responsibly will share that power with the patient and fight the effects of the sickness together in partnership”. What should be added here is that some specialist doctors may also be renowned for *kaipunyam*, though this serves as an extra advantage to their specialization.

¹⁴⁷ Apart from allopathic practitioners, I met a couple of aurvedic and homeopathic doctors who were said to have *kaipunyam*. It should be noted, however, that the expectations about the *kaipunyam* differs among different systems of medicine. For instance, no one is expecting a gifted homeopathic physician to produce immediate pain relief in the same manner as an allopathic doctor. There is a widespread conviction in Keranad that homeopathic medicines – regardless of how good the doctor is – are slow steady burners that can be effective in the long run but cannot work very fast. Accordingly, the doctors who have *kaipunyam* are expected to bring the best results out of the medical system of which they are a part.

This quality of *kaipunyam* that some doctors are said to possess can be related to Claude Levi-Strauss's (1968) discussion of Quesalid, a Native American Kwakiutl medicine man. Levi-Strauss used him to illustrate the point that it is the belief by a community or group that determines the result of the treatment. When he was a trainee shaman, Quesalid was not convinced about the efficacy of the healing techniques being taught by his teachers. During the training period he was sent to treat a patient who had dreamed of Quesalid as a healer. The treatment was, even to his surprise, an outstanding success and the healer's reputation began to spread (Hunter, 2012). Quesalid credits his accomplishment to the fact that the patient "firmly believed in the dream he had about me" (Levi-Strauss, 1968). He attributed "the success of his cure to the psychological state of the patient" and also to the confidence and belief of the audience. (Johnson, 2003, p 79). During three months in 2009 I interviewed many doctors in Keranad who were said to have *kaipunyam*. However I never met a single doctor prepared to consider that his cures came from his reputation. "I treat my patients scientifically after having a proper diagnosis. What people attribute is not relevant to me", to quote one of them. In other words, he attributed his success as being external to himself, invested in his patients' beliefs in the correctness of his diagnosis. Likewise, Quesalid attributed his cures not to his personal qualities but to his ability to objectify the illness and the cure to the patient, through pulling out the illness from the patient's body often in the form of a bloody worm.

Nevertheless, the success of Quesalid and that of doctors who have *kaipunyam* have one thing in common: the expectations of a cure emerging from faith in the healer's special powers to heal, both by the patient and the wider society. Whilst the reason for such a trust might be specific to a particular individual, it is the social and cultural evaluations of the personhood of the doctor that make him a proper vessel to receive the healing gift. Unlike the faith in professional medical specialists, where qualifications are most important, doctors with *kaipunyam* improvise the type of medical care they provide. Their relationship with patients, like that of Quesalid, is premised upon the trust and reputation they built over years, but it also comes from embodying a kind, generous, compassionate, devoted demeanour. A doctor with *kaipunyam* tends to be a person who is a long-term resident of a certain area and renowned for having a personality that allows him to empathise with kin and neighbours. Despite their denying it, it is

these psychological qualities that also make him or her a proper vessel for the medical gift. In tune with the life trajectory of fellow residents he can enter their corporeal existence readily so as to discern what is wrong, what has gone astray and needs to be corrected. Having a chance to treat a large number of people over a long time allows doctors to prove their reputation repeatedly so as to create and meet popular expectations. What all this means is that medical authority and its exercise is premised upon a complex terrain in which the social relationships between doctors and patients are of great importance and can themselves be constitutive of cures. The fact that the ‘gifted hand’ of popular doctors successfully exists alongside the mushrooming of specialists and super-specialists, almost as a counter-weight, provides an illustration of this.

A complex terrain

The authority wielded by the specialist doctors derives from more conventional sources, based on their scientific understanding of particular body parts and their ability to provide “indisputable” expert knowledge. This monopoly of knowledge is, however, no longer the sole constituent of their professional power (Gradszkova 2009; Pollock, 2005). The fact that it is mostly they who introduce and deploy the latest scientific techniques to investigate patients also constitutes their authority. The high reliance on technology and tests in modern medicine turns doctors into scientists whose medical authority comes from a rationalism that rests on manipulating data input to produce so called “accurate” diagnoses. It is not medical knowledge or practice in itself that inherently provides specialist doctors with their authority, but rather their practical skilled use of technology. Specialist doctors in Kerala now rely so heavily on investigative techniques that these marginalize other forms of knowledge derived from taking the patient’s history and even from the more ordinary medical physical examination.

It has been argued that the growth of specialist bio-medical models takes illness and its management away from patients. Arthur Klienman (1980) argues that; “saturated with a particular theoretical and value orientation it had no means for taking into account patient and lay perspectives on a given sickness episode, to say nothing of alternative therapeutic formulations held by other healing systems. The biomedical model did not account for the meaning contexts of sickness, nor was it self-reflexive” (p.18). The process of contextual

elimination – i.e. eliminating the social context of the patient from the clinical interview – is more rampant in the case of specialist medicine (Good, 1994; Waitzkin, 1991). It is no surprise to find allopathic specialists ignoring the illness stories of the sick person and depending more on laboratory tests and electronic image scanning reports for uncovering the "medical truth".

In Kerala, the private sector has far outpaced the government facilities in the provision of these sophisticated modalities of diagnosis and therapy (Iqbal, 2006). However, following the advent of NRHM funds, there has emerged a situation in which government hospitals too – including PHCs – have become better equipped with specialists and investigative-diagnostic techniques. One Health Inspector from Kodichal summed up this policy change: “The primary healthcare centers were originally envisioned as places for treating basic ailments and coordinating disease-prevention activities at the community level. But today, for the common public, the expansion of PHCs ‘should’ be towards the appointment of specialists and the introduction of modern investigative equipments.”

The heavy demand for specialty clinics means that consultation time is restricted and there is more reliance on investigative results. In the year 2006, when Kerala witnessed its first chikungunya outbreak, there were 300 to 400 medical laboratories in each district, besides the ones attached to hospitals and clinics. This was in addition to another 100-odd laboratories in each district that carried out X-ray diagnostic procedures.¹⁴⁸ What is pertinent to add here is that, apart from time constraints, specialist doctors often have vested interests in sending patients to laboratories and scanning units. Indeed, in Keranad and Kodichal, there are many doctors who receive illegal “commission” from private diagnostic centers for every order that they place. Many newspaper reports confirm this scandal of financial incentives for specialist doctors to order diagnostic laboratory tests. Allopathic doctors usually receive ‘periodic gifts’ such as flight tickets and household appliances in return for sending their patients to laboratories and diagnostic centers. The fact that hospital attacks in Kerala were mostly directed against allopathic specialists should be viewed in this context.

¹⁴⁸The Hindu, February 1, 2006

Another incentive pushing doctors towards ordering an excess of tests is that doctors in Kerala are potentially liable under the Consumer Protection Act for medical negligence. Following the incorporation of the medical profession within the definition of 'service' in the Consumer Protection Act, 1986, patients can now sue their doctors in the consumer protection courts for compensation in a medical negligence case (Debbarma et al., 2009). The fear of litigation, along with the fear of being attacked in the hospital for any eventual complications, has been cited as the driving force behind the practice of defensive medicine. Defensive medicine, according to one definition,¹⁴⁹ is the practice of diagnostic or therapeutic measures conducted primarily not to ensure the health of the patient, but as a safeguard against possible malpractice liability. This may include tests, prescriptions, hospitalizations and referrals that may not be medically necessary, but are viewed as providing protection from a potential lawsuit. A prominent neurologist in Kerala claimed that as long ago as the 1990s the threat of medico-legal cases was a major concern for specialist doctors¹⁵⁰.

On investigation of a couple of referral cases from Keranad and Kodichal, certain key elements of defensive medicine practised in the area began to become clear. It is now an accepted practice in the medical profession that when referring a patient to someone else, there is no mandate for the consulting doctor to diagnose the patient's illness. Steps that are normally assumed to take place in patient referrals– the examination of patient by the referring physician and the documentation of the patient's health condition obtained after acquiring a full or partial insight into the disease state – are now normally absent. Instead, most of the referrals have one thing in common, namely that they are made without taking into account the very rationale for referring the patient i.e. that the patient needs a more advanced level of care, particularly specialized services, than what the referring doctor's hospital or clinic can administer. Such patient-referrals indicate that doctors' confidence to deal with clinical complexity has been reduced and legal threats and other forms of insecurity are issues taken into consideration by doctors during clinical engagements, guiding their mentality and producing what may seem like an indifferent attitude embodied in the question: why do I need to take a risk? Such a reduction

¹⁴⁹This definition is used for a study, conducted by Jackson Healthcare and Gallup in 2010 on the defensive medical practices among US physicians.

¹⁵⁰ Safari TV. Interview with Dr.Fazal Gafoor. Telecasted on 8 April 2015.

in the confidence levels of doctors is all pervasive in Kerala, particularly among those working at the primary-level hospitals and clinics. Beginners in medical practice often think that referring patients is an easy way to deal with all kinds of clinical management.

Discussing the medical profession in eighteenth and nineteenth century Europe, Foucault (2001) comments that the moral stature of doctors was sometimes more important than their scientific status. The two forms of authority often worked in alliance with each other. For Foucault, obtaining the confidence of the sufferers, especially the poor, came from merging the medical training of the doctors with their moral character and pedagogic work. The gift of life and care was merged with moral care, and it was hoped that indebtedness for being cured of one's physical illness would lead to moral self-scrutiny, self-reflexion and ethical transformation. Referring to the eighteenth century mental asylum, Foucault argues “the doctor's intervention is not made by virtue of a medical skill or power that he possesses in himself and that would be justified by a body of objective knowledge. It is not as a scientist that homo medicus has authority in the asylum, *but as a wise man*. If the medical profession is required, it is as a juridical and moral guarantee, not in the name of science” (Foucault, 2001, p. 257). Likewise, I would argue it is because of their moral trustworthiness and wise interventions that doctors who have *kaipunyam* still manage to prevail in a society where people from all walks of life are increasingly attracted towards professionally qualified specialists and super specialists. The high regard for specialised medicine following the mushrooming of private hospitals /clinics has not marginalised the importance of *kaipunyam* – even for those who can afford specialised medical services.

How this can be so, can be illustrated by the following specific example: a medical case that involved excessive nausea and vomiting by a woman in her early thirties. Immediately upon the development of these symptoms, the woman, with her husband's consent, approached one of the nearest practising gastroenterologists.¹⁵¹ The consulting super-specialist attributed the

¹⁵¹The practice of self-referral – i.e. patients referring themselves to a specialist or super-specialist without having seen a general practitioner first – is rampant in Kerala. To quote Wilson (2010), who did anthropological fieldwork in northern Kerala, “the system of super-specialty is highly confusing, as people easily end up seeing the wrong specialist because patients have choice in self-selecting doctors.

symptoms to gastrointestinal pathologies and went on to carry out endoscopic investigations of the stomach and duodenum. This gastroenterologist also started the female patient on a course of medication. The woman and her husband did not bother to query the doctor about the diagnosis for they were overcome by the seriousness of the situation and wanted to follow the medical instructions given. But the medication did not result in a marked improvement in the woman's condition so her husband took her to another clinic. There a consultant physician, who held an MD degree in general medicine, examined her briefly, looked at the endoscopic results, and took a brief history from the woman about her illness. The physician then ordered a new series of laboratory tests, especially blood tests, which were used to prescribe medicines of a different kind. This time her husband asked about the diagnosis and he received a detailed sophisticated report of an abnormality in her blood. However, the new medicines also failed to offer her any relief from the symptoms.

A few more days passed, during which the married couple remained confused about what to do next. Informal treatment appraisals by kin and peers added to feelings of worry, fear and anxiety. Finally, a family friend took them to a "MBBS doctor" who was famous for his *kaipunyam*. This doctor did not have a lot of degrees to put on his name plate, but he has had a great deal of experience and renown as a medical profession. Seldom does he send a patient for laboratory tests and instead only uses the referral option when he has genuine doubts. Most of his patients and their close kin are aware of the fact that he does not have an MD behind his practice. But people have great faith in him, whatever might be the nature of their ailments. Even pregnant women consulted him for advice, even though they knew that gynaecology was not his area of expertise.

When seeing the woman and her husband, this general physician, without asking his new patient a lot of questions about what had happened in the past, ordered a urine test to check the

For example, for any abdominal pain, people can choose between a urologist, a gynaecologist, a gastroenterologist, a nephrologist, or a general physician. Basic awareness of the meanings of different specialisations and which part of the body machine the doctor treats is there. However, people depend on the name and fame of a particular doctor rather than deciding their problem requires the attention of a urologist. (p.244)"

level of pregnancy hormone. When the result came back positive, I asked the doctor how he suspected the chance of pregnancy. He gave the following explanation of his diagnosis.

“When she entered into my clinic, a sense of sadness and helplessness filled her entire being. But a perfume smell was getting to me quickly. Very soon I found that the source of the smell was her husband’s shirt. I asked him about his profession. He was working as a car driver in Dubai at the time, and during those days he was on a two month vacation in Kerala. I assumed that they had a great many sexual intercourses during fertile days. Good quality perfumes can cause a lot of sexual arousal”.

What this demonstrates is that the non-specialist doctor has wide ranging knowledge that is perceptive about the behaviour and habits of human beings. He is not confined to medical methods but has a true empiricism that observes the world and deduces from it. The incident reveals his detailed knowledge of modern patterns of sociality and he re-presents these back to people as medical diagnosis of an unorthodox kind. There is also a power of deduction and observation that reaches beyond the orthodoxy of specialist medicine so as to take up perfumed shirts and migratory forms of labour which today are part of everyday lives. The eye for physical details and an everyday understanding for how human emotions and desires work is something that is often missing from the diagnoses of the specialists. It is celebrated as the unique acumen held by the doctors having *kaipunyam*.

Yet in Kerala, many of the doctors who played a central role during the epidemic crisis practised medicine in a manner entirely different from the way already described in the case of specialists and doctors with *kaipunyam*. This third type of doctor exercised their medical authority in the context of the unfolding of a different outpatient situation in the revamped primary healthcare system, resulting in a major difference in the way doctors, medicines and patients related to each other. In the remaining pages of this chapter, such transformations are addressed using specific ethnographic data. The following two cases were observed during fieldwork with the OP clinics at KPHC. The two cases demonstrate how a new category of

popular doctors – other than specialists and doctors with *kaipunyam* – emerged and established themselves within the context of the epidemic crisis.

Case one: A day at the KPHC's outpatient clinic

The Keranad Primary Healthcare Center, located on one side of the highway leading to Kodichal, is the oldest allopathic hospital in Keranad. It consists of three buildings – two newly constructed blocks together with an old main building. One of the two new blocks is exclusively meant for outpatient (OP) clinic consultations. The other new building is almost the same size as that of the OP block and it consists of the KPHC's administrative office, which contains a separate room for the senior Health Inspector and the hospital pharmacy department. This pharmacy provides medicines free of cost and this is a major factor both for the doctors and the patients. The old main building is primarily used for inpatient (IP) treatments. Today, after a massive renovation in the mid 2000s, KPHC has two regular physicians who consult on a more or less daily basis. The other hospital staff comprises four nurses, two health inspectors, one pharmacist, and a small number of supporting personnel. It is worth adding here that KPHC was the most preferred treatment destination in Keranad in the time of the chikungunya outbreaks in 2007. During that epidemic crisis and the years thereafter, this primary care hospital functioned in such a manner as to cater to the health care needs of Keranadan population. After having implemented the National Rural Health Mission (NRHM), as mentioned in the fourth chapter, the outpatient facilities of KPHC witnessed significant improvements, which include the construction of the new OP block with two consultation rooms. The number of outpatient visits has increased very rapidly since 2007 and, according to the head nurse, is seven times as large as the daily inpatient (IP) numbers.

Generally, doctors come to their clinics at 8.30 or 9.00 am and are available until lunch time. For those seeking a consultation, there is a registration desk staffed with one or more clerical personnel. Registration basically involves recording the patient's name, age, sex and address. As part of the registration formalities, a patient has to pay a nominal fee of Rs.2 towards a fund meant for KPHC's future developments. Afterwards, he or she is given a sheet of paper containing the official name of the hospital and information about the patient's name, age and

sex. This paper slip needs to be given to the doctor during the clinic session and it also provides a place where the doctor writes down all of the prescribed medications.¹⁵² Having obtained the registration paper, the patient can then move towards the new building where the outpatient clinics are located.

At the time of my fieldwork on persisting chikungunya at KPHC (between August 2009 and July 2010), there were two consultant-led outpatient clinics. The first doctor had a post-graduate degree and specialist training in general medicine and cardiology, and he had been hired using NRHM money. This specialist consultant was a man between fifty five and sixty years of age. Coming from a largely business centered family based in Kodichal, he has become a renowned specialist that people visit when they encounter intractable problems which they believe might require expensive specialized medical treatment. Many of his regular patients describe him as possessing *kaipunyam*. The consultant doctor who took the second clinic was a non-specialist doctor around thirty years of age who had just a bachelor's degree in medicine and surgery. Before joining KPHC, this non-specialist doctor did not have any work experience in the field of outpatient consultation. It was apparent that this doctor, even though he was not regarded as having *kaipunyam*, nevertheless attracted a large number of patients. Most days around 100-150 consultations took place in his clinic between 9 am and 1.30 pm. This was at a time when other specialist doctors had on average around 40-50 patients. I wondered why many chikungunya victims in Keranad had so high a regard for the non-specialist doctor.

The two outpatient clinics are located in different but adjacent rooms that face in the same direction. The rooms share the same corridor, where those who have the paper slip at hand are supposed to form two separate queues to consult 'their' doctor. Since there is no centrally administered token system, the consultees choose the queue lined up to see doctor they prefer. A basic difference between the two queues was very obvious. The length of the queues always differed in a more or less consistent manner. There was always a long queue for the clinic of the

¹⁵² Doctors are officially supposed to keep a register of their consultees. Public health doctors at the primary and secondary level clinics normally keep a brief record of the consultations that have taken place in the clinic, with the registration numbers and names of the consultees and a very short statement of the clinical diagnosis being made.

young, non-specialist doctor. On average, there would be some thirty to thirty five Keranadans standing in a line. The organisation of the queue in itself was particularly interesting. Since it is a government hospital, the doors to the OP clinics are usually kept open. Because of this open door arrangement, and the pressure of the length of the queue, lined up patients move forward quite quickly to the clinician's desk so that there are often at least four or five patients actually inside the clinician's room. They normally fill the space between the door and the clinician's desk. This means that the clinician's actions are always in close vicinity to the front-queuers. Under such a situation, almost every queuer can observe at least three or four clinical sessions concerning others before his or her own turn comes up. It seemed to me that the queuers for the non-specialist doctor's clinic seemed to have only minor, non-embarrassing medical complaints. The public nature of the examinations perhaps produces this situation. In no case was there someone physically unable to stand in the queue. There was no any discernible sense of suffering or anxiety on the faces of those waiting.

Though a few in the queue did sit temporarily on a bench along the corridor wall, no-one seemed to have any major ailment. They just sat there and talked with each other. Standing up Keranadans also talked among themselves, but only until they came to the front of the queue. I overheard them talking about things that seemingly had no direct connection with the medical realm. It is true that most discussions started off with a statement about the relevance and need for a medical visit. In response to the commonly heard first question, "what happened", most people gave a more or less similar reply, "just came up to get some medicines". Some added a brief comment about their ailment. But such introductory remarks are nothing more than a breaking of the ice. Once they familiarize themselves within the hospital premises, many find themselves discussing intimate topics of a non-medical kind. According to what I overheard, many conversations involved a process of 'social updating', that is, getting further information on acquaintances, such as kin, peers and friends. The patients spent their time sharing knowledge about the things in their social world that worried or concerned them. But it would be a mistake to assume that Keranadans preplanned to meet and talk at the OP corridor. Most of the queuers for the non-specialist doctor's clinic met unexpectedly and this is what made those conversations often interesting.

Robin. A. Kearns's (1998) ethnographic research at outpatient clinics among the Hokianga, a rural community in New Zealand is relevant here. Maori make up about 74% of the population in Hokianga. Of specific interest to Kearns is how outpatient healthcare among Hokianga "provides a 'lens' through which more general relationships between place, health and social process can be examined". At the time Kearns's study was undertaken, the Hokianga community was undergoing a crisis associated with economic and service sector restructuring. Crucial to the crisis was a high rate of unemployment, something which transformed the state-run outpatient clinics into de facto community centres where a lot of social interactions took place. In such a context, the clinical settings provided public places of interaction and "the consumption of low-cost or no cost public services can take a greater importance than would otherwise be the case". Going to the doctor, in the case of Hokianga, "is not only a chance to obtain a repeat prescription but also an opportunity to catch up on news with the others attending from within the community and its surrounding area" (Kearns, 1998, p. 236). It also "provided an opportunity for residents to reflect on the well-being of not only themselves, their families, and friends but also of the community itself".

It is true that the epidemic crisis in Keranad is different to the unemployment crisis among Hokianga and is something that is more medical in origin. However, the social and cultural functioning of these institutionalized sites of medicine has similarities. As Evans-Pritchard and Victor Turner noted in their classic studies, illness can become a way of reflecting on social relations and remediating them back in ways that can transform those relations. The persistence of chikungunya cannot be considered in isolation from other social changes, one of which is the emergence of a female work force in Kerala. The number of women participating in the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), as I have mentioned in Chapter Five, far exceeds that of men. Many such women – as I will elaborate in Case Two – are chikungunya victims and thus frequent visitors at KPHC. Whenever I went to KPHC, there was a greater number of women consultees than men. Here we have a clear case for invoking Jacques Donzelot's argument (1979) about the close relationship between women and the modern medical profession. Donzelot's study, *The Policing of Families* (1979), is a Foucauldian analysis of how the working-class and peasant families in France, since the

eighteenth-century, became subject to the surveillance regime of the state but also of more private social welfare agencies.

It is a fact that the context of the epidemic crisis in Kerala is considerably different from the local conditions in which *The Policing of Families* was produced. Furthermore, many of the targets Donzelot aimed at and the polemics he engaged in do not correspond with my own research objectives. However, one of his major insights into the French situation – the shift from government ‘of’ the families to government ‘through’ the families – can be used to analyse the emergent alliance I observed between housewives and medical professionals. Donzelot wrote that “the perfusion of new sanitary, educative and relative behaviors in the family was to follow the path that was already cleared to it by the savings campaign” (p.90). Worth noting here is that the housewives in the MNREGS program have been mobilized in Kerala through *Kudumbashree* (literally means ‘prosperity of the family’), which is the poverty eradication mission of the Government of Kerala. Envisioned to eradicate poverty by means of increasing the household savings through micro-credit groups, the motto of Kudumbashree is to “reach out to the family through women, reach out to the community through family” (Sajan, 2008).

Along with the gender dimension there is also a class basis for the persistence of chikungunya and its treatment. The class aspects can be seen in the transformation of the KPHC outpatient wing into a sort of community center where social interactions take place. The ‘social updating’ which takes place involves: the role of the illness and the need for medicines so as to keep working; the pressing needs of social obligations from kin and ceremonies; the situation of children and how they are going at school; whether they have work and, if any relatives are working overseas, whether they are caring for their families by sending back remittances. Social updating is a shared concern for community well-being but it can also involve the role of persisting chikungunya pains in terms of other forms of class suffering and their amelioration. Pain and the need for medicines creates a common platform to start conversations about all kinds of managements of difficulties in life.

At the other KPHC clinic, the situation was in sharp contradistinction to the sorts of things happening in front of the non-specialist doctor's clinic described above. At this second clinic even though the veteran specialist doctor was said to have *kaipunyam*, there wasn't any discernible rush to join the queue. In the corridor, there were many occasions when no one was queueing for that clinic. Whatever the situation was in the less preferred queue, it was very seldom that a Keranadan would switch-over from the first queue. Nearly all preferred to go through the longer queue. In one sense those who were standing in the second queue were the lucky ones, all managed to consult their doctor much earlier than anyone in the first queue. But when going to the clinician's desk, there wasn't any enthusiasm. Even though the door was kept open, none of the queuers advanced closer to the clinician's desk. The short queue would not usually extend beyond the door steps. This meant that there was only one patient at the specialist's room at a time and the consultation remained a private affair. Often I noticed explicit signs of suffering on their faces. They stayed silent and seemed anxious. Unlike most queuers of the first clinic, who had come alone, the queuers for the specialist doctor's clinic were accompanied by relatives. But there was rarely active discussion among them while waiting to see the doctor. Most of them patiently waited for their turn.

When it comes to the clinical management of patients, an intriguing contrast was apparent between the two clinics. While the specialist usually spent more time with his patients, ranging between four and six minutes, the non-specialist often finished the consultation in two minutes or even less. I observed that, as a general rule, whenever any Keranadan came out of the non-specialist doctor's clinic, he or she would definitely receive some medical prescription. Only in rare instances would one of the consultees come out of that clinic without a list of prescribed medications. What normally happens then is that people move in a sequential manner from the non-specialist doctor's clinic to the KPHC pharmacy. However the situation was different with those coming out of the second clinic. While some of them may have received prescriptions for medicines available at the KPHC pharmacy, many were given a list of medications obtainable only from outside pharmacies. I even met a couple of patients coming out of the specialist's clinic without being prescribed any medicine at all; instead life-style modifications had been suggested as treatment. Those patients with whom I spoke had full faith in the *kaipunyam* of the specialist doctor, and believed that medicines might not be necessary for them.

I would often go to the pharmacy to observe the list of medicines prescribed by the non-specialist. There was a special reason why I set a high value on her prescription list. In conversation with me, the chief pharmacist of the KPHC had remarked on the limited stock of drugs and chemicals available in the pharmacy from the Kerala government which meant that there was always the problem of limited variety and limited supply. Whatever the diagnosis the doctor made, he or she had to prescribe those medicines that were readily available in the pharmacy. Examining the prescription lists written by the non-specialist, I found that there was no real difference between the various prescriptions. Most chikungunya victims received exactly the same kinds of medicines. Though many prescriptions were exactly the same, some varied slightly. In the cases of those with monsoon fevers along with persisting chikungunya pains, the prescription list contain similar antihistamines, antipyretics (mostly paracetamol), and antibiotics. I also found Vitamin tablets in most prescriptions. A similar prescription pattern was observed in cases with persisting chikungunya, regardless of the differential nature of the joint pains.

Case two: A journey with the mobile fever clinic

Case Two concerns a situation that occurred one day when I accompanied one of the KPHC-sponsored mobile fever clinics. Often simply called a 'fever vehicle' by the people, this is basically a state-sponsored mobile OP clinic run by a medical team that consists of an allopathic doctor, a nurse, pharmacist and a Health Inspector. The mobile clinic carries many essential medicines and basic diagnostic equipment such as blood-pressure meters and stethoscopes. It stops at selected locations such as the sub-centres of the KPHC, local clubs and selected households in order to be available to examine local residents. It is the Health Inspector who decides the route-path of a mobile fever clinic in consultation with the ASHA workers. These latter are supposed to inform the local population about the arrival of the mobile clinic. Interestingly it was not due to any general pressure from local people that the State government initiated this community-level intervention. The idea to dispatch mobile medical teams to interior areas had much to do with fever politics being unfolded following the chikungunya fever outbreaks between 2007 and 2009. The ruling governments were forced to come up with initiatives like the mobile fever clinics as an response to the accusation that linked fevers to governmental failure.



When the mobile fever clinic reached a house in Keranad

The incident that I want to explore occurred when the mobile fever van reached a house for dispensing medicines. There were forty five or fifty people standing on the house's front porch. Except for a group of men standing under a coconut tree, nearly all those assembled were women. Soon after the Health Inspector stepped out of the vehicle, he busily started to arrange a clinical setting on the front porch. While the pharmacist organised the medicines, the nurse proceeded to write down the patient details in a register. The nurse also gave each patient a piece of paper so that the non-specialist doctor – a Kodichal-based woman around thirty five years of age, totally unknown to Keranadans – could give them prescriptions. The nurse and the pharmacist spent some time interacting with the Keranadans assembled at the porch, but the doctor stood alone at a small distance until the Health Inspector set up a chair for her to sit on. It appeared that the doctor had no interest in, nor any non-medical social basis for, mingling with the people. Neither was she approached by anyone. I spoke briefly with her during this time and she voiced her concern about the heavy workload of PHC doctors after the chikungunya outbreaks in 2007.

The mobile clinic was ready to start when the nurse finished with the registration work and the pharmacist was ready to dispense medicines. The doctor's chair was initially put on the front porch and when the doctor took her seat, the patients, the women who were waiting, then surrounded her on every side. The Health Inspector intervened swiftly as the doctor showed

evident marks of unease about the unfolding situation. He shifted the doctor's chair to the verandah of the house, which was a less public space. Following this relocation, the women formed a queue at the front porch a situation which allowed the doctor to consult one patient at a time. On average, the doctor spent 1-2 minutes with each patient. The consultation, similar to those observed in the KPHC's first outpatient clinic, was a public event as the clinical examination took place in the close vicinity of other patients. Every patient was given a prescription to be filled at the pharmacist's desk.

Some men standing under a coconut tree did not join the queue to see the doctor. Instead they made witty remarks and engaged in some lively discussions with each other. I approached and asked them about their hesitancy to become a part of the queue. They stopped their discussion and the oldest remarked humorously that Keranadans, especially women, are nowadays too much mesmerized by the new practices of giving tablets and syrups to all who come to a doctor's desk. He added that they would see the doctor only once the queue was empty, implying that this was probably an unlikely event. In a similar vein of humour, another man leaning against the coconut tree responded to my question by saying he would go to the doctor only if there was any medicine left on the pharmacist's desk. It was then that I looked at what was happening where the pharmacist was dispensing the drugs and medicines prescribed by the doctor. Surrounded by a crowd of women, each with one or two prescriptions in their hands, the pharmacist had hardly time to breathe and there were very few medicines remaining on the desk.

When I asked the men why they had made these comments, one turned around and pointed towards an adjacent piece of land. There, the top soil had been lightly and very recently ploughed. In a low voice, another man informed me how he had worked the soil with these 'patients' under the MGNREGS scheme until as recently as half an hour before the "fever vehicle" arrived. As he put it: "After almost five hours of work, the ASHA worker informed one of women about the arrival of the fever vehicle. When they heard about the arrival of a doctor with free medicines, the women stopped working and assembled at the front porch of the house". On hearing this, I turned around and looked at the dress of the women in the queue. Most of

them were in “nighties”,¹⁵³ with only basic hair arrangements, and had a shabby look. The shawl over their shoulders was somewhat soiled. They were not treating this occasion as a formal outing, such as going to town, instead it had a more informal neighbourhood quality.

Now doubting the genuineness of these ‘patients’, I approached the women standing in the queue. After introducing myself as a researcher, I enquired whether they had been working for the day in MGNREGS. They nodded and provided me with details regarding wages and the number of forthcoming working days. While talking with them, their conversations turned to the occasional recurrence of the old chikungunya pain and other different kinds of bodily incapacities. Yet those who were now eagerly waiting for medicines had worked the soil over the whole day. Further, one of the men joked about how women nowadays rush from place to place for medicines.



Mobile Fever Clinic at work – The doctor sits at the left corner

¹⁵³Nightie is the most common homely dress of a Keranadan woman between the ages of thirty five to sixty. In the beginning, nightie had been predominantly an upper class night wear. In Kerand, it is still a shameful act for a ‘woman in nightie’ to make herself visible at the town-center. At the maximum, a nightie-dressed woman would go to neighboring dwellings and pocket roads. Dressing up in sarees is what is generally expected from a Keranadan housewife going to the town center or any other public place. Churidhar is also ‘qualified’ as a dress for the public places, nevertheless, mostly women under thirty five years of age wore it. Women in public places are expected to have neatly combed hair loosely tied back either with a clip or using a few hair strands.

After the length of the queue to consult the doctor had been reduced considerably, one of the three men, the oldest, decided to go to the doctor's table. Before leaving, he invited me to look at his previous medical records even though he knew I was not a member of the mobile clinic. I was surprised to see he was attending several different medical systems at the same time.¹⁵⁴ He asked me whether he should show all the prescriptions he received from various sources to the doctor. After warning him about possible drug interactions, I suggested he tell the doctor about the medicines he is taking at the moment. After hearing my suggestion, he moved towards the front porch and joined the queue. The old man managed to consult the doctor as the last patient of the clinical session.

When the doctor left the verandah, after finishing off all the patients, the house owner invited all medical team members to partake of tea. Over tea, I asked the doctor about the number of fever patients in the clinical session. After a moment's pause she answered that there were hardly any serious fever cases. Of the six patients diagnosed with fever, she explained that only one needed to go to a referral hospital with a laboratory. The remaining five were given medicines according to the specific symptoms each one displayed. I asked her about the diagnoses she made in the cases of other women. As she showed some hesitation about responding to the query I rephrased my enquiry and commented that few of the assembled women appeared seriously ill. I mentioned the manual work they had done that day. The doctor was neither surprised nor shocked to hear that. On the contrary, a mature and mysterious smile crossed her face. She finished her tea and gave the tea cup back to the house owner.

Several moments later, the doctor broke the silence by giving a rather complex interpretation of the kind of modern medicine currently practised in Kerala. She estimated that about half of the patients she sees at the hospital or mobile clinics are suffering from the so-called chikungunya pains. Doctors at the PHC level like herself are, in her words, "nowadays not 'prescribing' the required medicines but 'dividing' the stock of available drugs among all those

¹⁵⁴He was taking prescriptions for three different ailments – nephritis or inflammation of the kidney, rheumatoid arthritis affecting the synovial joints and asthmatic bronchitis. For each, he was following different clinical systems. For his kidney disorder, the old man regularly consulted a super specialist doctor at Kottayam, which is about 70 kilometers away from his home. A local person who practices a sort of Aurvedic medicine treats his arthritic complaints. For the past four years, he has himself held numberless consultations with a homeo practitioner at the nearest town to get medicines for asthmatic bronchitis. At that time he wants some sort of medicines for the sudden breathing difficulty that is worsening day by day.

seeking medicine”. She said that Keranadans, particularly women, transform all physical discomforts into diseases that are treatable by taking medicines. As a result, they don’t miss a single opportunity to get free medicines. The doctor concluded by claiming that even if women were in a comfortable state and not distressed by hard agricultural work, they would still experience all sorts of physical discomfort when they saw the doctor coming.

Conclusion

In her research among the Kani tribes of Kerala, Vineetha Menon (2002) uses the term “the charm of medicine”, which operates independent of the authority of a prescribing practitioner. She is referring to the phenomenon of self-medication where people have a direct relationship with the pharmacist and “getting rid of the intermediary – the doctor”. Nevertheless, from the two ethnographic cases I have described it is clear that people still continue to adhere to the authority of qualified medical practitioners. All those Keranadans standing in the queue expected some kind of diagnosis and help from a qualified clinician. Most Keranadans considered hospitals as the ‘right place’ and doctors as the ‘right persons’ to deal with their health imbalances. My fieldwork in KPHC’s outpatient clinics, however, identified the emergence of a new breed of popular doctors who reconstituted their clinics into a kind of social institution. Running counter to the trend of specialisation and the growing medical authority was the popularity of the clinics run by non-specialist doctors. In the course of fieldwork in the PHCs around Keranad, and in different parts of Kozhikode district, I also witnessed another trend and that is the clinics of young, inexperienced, and non-specialist practitioners were widely preferred over doctors with *kaipunyam* or specialist degrees.

The medical authority involved in the clinical consultations at the non-specialist doctors’ clinic needs to be analyzed because there is no serious diagnosis or pathology involved in most cases. Without any substantial intimacy or solidarity between the doctor and the patients, there is a relaxation of the conventional way of running clinics. The consultation is not only a short-term event, but becomes also a public event as the doctor-patient interactions take place in the close vicinity and within hearing of other patients. There is nothing like a structured physical examination of the patient other than the use of stethoscope. Except in a very few cases no patient is referred to laboratories or scanning centers for detailed investigations. Because clinical consultations no longer consist of the practitioner making the decision of whether or not to

prescribe medicines, these non-specialist doctors needed to adjust themselves according to popular expectations that every consultation could and should end up with a prescription.

Relevant here is the research of Lisabeth Sachs (1989), the Swedish anthropologist who did fieldwork at the outpatient clinics in rural Sri Lanka. She was analyzing the case of a 'satisfactory' clinical encounter even though the patient's complaint and the doctor's diagnosis did not adequately correspond to each other during the clinical encounter. Sachs explored therapeutic encounters where the meaning of therapy was negotiated and communicated. She was referring to interesting situations in which doctors and patients hardly talked to each other. Yet Sach's research found that both the parties were satisfied about the encounter, and in all cases the outpatient consultation resulted in a medical prescription. What is important in such a relationship is confidence in the actual medicines, rather than faith and belief in the doctor or his/her professional qualifications. "The mutual confidence of practitioners and patients in the medicines", as Sachs (1989) rightly notes, "helps prevent the misunderstanding of each other's beliefs from being uncovered. This confidence imbues the medicines with a magic, symbolic aura, giving the practitioners as well as the patients a feeling that they contribute in their way to solving the acute health problem". Prescribing medicines serves the purpose of expressing and reaffirming the authority of doctors over nurses and pharmacists who, at many times, prescribe through unofficial channels (Geest & Hardon, 2006).

Although the two cases I examined were also characterized as brief but 'satisfactory' clinical encounters resulting in prescriptions, the underpinning factors were different in the Keranadan and Sri Lankan cases. Yet in both ethnographic contexts, there is this growing hegemony of allopathic medicine even among rural populations that are not fully medicalised and westernized. The democratic right of all to medicine appeals to a kind of popular socialism that situates itself in juxtaposition to the increasingly costly specialised medical care that is growing and becoming dominant. What basically happens in the context of persisting chikungunya is that medical authority is not declining, but operates sometimes paradoxically through destabilizing the normal situation upon which the dominant medical order is built.

In Closing

THE FEAR OF FEVER

Any disease is at once a pathological reality and a social construction. Epidemic diseases are especially so because they are “never only biological in their nature, course, or impact. What they are and what they do are deeply entwined with human socio-cultural systems, including the way humans understand, organize and treat each other” (Singer 2015, p.14). The crisis posed by the epidemic fevers in Kerala, unfolded at a time when the economy had become more globally integrated and had undergone major transformations in terms of the flow of people, goods, services and money. This new mobility and fluidity became encoded in a culture of fear and anxiety concerning pandemic fevers. While fear of most diseases derives from the individual and the family of sufferer, in the case of recent fevers, this fear is socially driven by much wider factors that include the mass media, political competition between parties, migration, urbanisation, changing gender relations and the growth of western specialised medicine. Fever epidemics become collectively shared anxieties that in turn become part of the imaginary structures underpinning the relationships between people –relationships of solidarity, ambivalence, fear, opposition and empathy. A major aspect of this epidemic situation in Kerala is that, even though the outbreaks since 2010 are known to be minor, the memory of the chikungunya outbreaks between 2007 and 2009 informs other fevers as a potential. This is not just a purely imaginary fear for it is also part of the state institutionalized response mechanisms that await other outbreaks and seek to curtail their possibility. The onset of fever symptoms during the rainy days is no longer considered normal and has become incorporated into an encompassing politics of risk.

What is different about fever politics is the role of science and medicine in the creation of these collective panics and how this is part of a transformation of the state and the development of a bio-politics that manages life in ever more detailed ways. The politicization of science and medicine makes fevers increasingly pathological and becomes the basis for an expansion in the incorporation of the population into hegemonic medical discourses and practices. It marks the emergent politics of a risk society where statistics and possibilities are managed to create a science of government that minimizes risk to a population that is cared for not just by the state but by the regime of biopolitics that the state, medicine, science, doctors, hospitals and clinics become incorporated into.

Fever politics as the management of risk also marks the emergence of a different kind of state whose rationale, forms of knowledge, interventions, practices and administrative structure become focused on maximizing possibilities promoting the common good whilst minimizing possibilities that adversely affect the populace. The crisis posed by epidemic fevers in Kerala is underpinned by the fact that medical risks have not been totally predictable and could not initially be managed within the existing institutional healthcare system. No government could totally manage the emergent epidemic fevers via its healthcare apparatuses, for even when there is success and fevers fall, this merely serves to highlight the fevers that remain. Unlike the ideal medical situation, where there is certainty about the nature of the disease and its treatment, popular confidence in Kerala's much acclaimed public healthcare machinery has now come into question. Ulrich Beck reports a similar problem in the case of the so-called chronic illnesses that "can be diagnosed thanks to the more acute medical and technical sensory system, without the presence or even the prospect of any effective measures to treat them" (Beck, 1992, p. 204). In short, what is under question is not just the efficacy of the medical system, but the futuristic calculations and binding promise of a rationalist, modernist Kerala state.

The epidemic crisis, while involving a critique of the administration or government, is also serving its purposes by continually reforming, reshaping and enlarging its institutions, forms

of knowledge, technologies and policies. The persisting crisis and sense of failure is a call for more government interventions and more monitoring and collection of statistics. Epidemiological techniques, thus reshaped, “involve the tracing of illness and disease in specified populations using statistical and screening techniques, linking illness and disease with their causal variables in the attempt to predict health outcomes at the population level and thus to better control them and reduce health risks” (Lupton, 2006, p.94). The Primary Health Care Centers (PHCs) no longer operate within their own walls but radiate out into the community. Community health teams, headed by a Health Inspector and comprised of ASHA workers, conduct home visits before and during the monsoon season aimed at reducing the local breeding grounds for mosquitoes and creating awareness about the H1N1 fever. In doing so they also create new forms of mindfulness and reinforce regimes of hygiene, health, diet, education and commitment to medical supervision.

The persisting panic over chikungunya pains challenges the fundamental relationships of authority that existed between patients and doctors and has led to a realignment of the organization and exercise of medical power. It was found that chikungunya victims contested the authority of medicine –“its classification forms, definitions of high risk, and standardized protocols (Maraesa, 2012, p.220)” – with their embodied experiences. Doctors struggled to produce “scientific” truths about the illnesses while informal bodies of knowledge held by chikungunya victims formed the basis of organising alternative understandings and therapies. The clinical reasoning of a practitioner when he/she was confronted with a patient problem eventually became diluted and what was put in place was a ‘social management’ of less serious medical problems that were said to be associated with chikungunya and/or mistaken for chikungunya. The new alternative mode of sociality in the clinics run by the popular non-specialist doctors having no *kaipunyam* is akin to the informal manner in which the so-called quack clinics are organized. There is casualness and familiarity underpinning the quack clinics run by unregistered medics and there is nothing there like the stiff formal clinical space driven by clear imperatives or consensual rules that can be found in registered clinics and that help

underpin the authority of the doctor. Instead, patients are given more opportunity to interact among themselves whilst waiting and this helps them to arrive at their own conclusions about the illness which the unregistered medic confirms. The interactions in the clinic and treatment are more negotiable and the patients have more authority and right to make demands about, or sometimes even choose between, the necessary medicines. Notable here is that in no case could a quack send off a patient without prescribing some sort of medicine.

The way medical authority is exercised during the context of persisting chikungunya poses a serious analytical problem as it is difficult to make a distinction between a clinic run by a qualified practitioner and by a quack. The non-specialist doctors do invoke a trained sense of scientific method, exemplifying their skill and professionalism, but, like the quacks, they are under pressure to prescribe medicines to alleviate all kinds of suffering. Deciding the type of prescription remains the prerogative of the doctor, and not the patient in these clinics. However, like the quack clinic, there is a relaxation of rules and the patients are approached in an informal manner. Patients get a good opportunity to interact among themselves while waiting to consult the doctor, which is a public event. When it comes to the dispensation of medicines, every patient is diagnosed as having a disease and is given prescriptions, as in the quack clinics. Indeed, one of the main reasons given for the high popularity of non-specialist doctors was the fact that every patient consulting him was ‘entitled’ to medicines. Observations made during the present fieldwork bear this out, even a high-profile specialist at the Keranad Primary Healthcare Center (KPHC), renowned for his *kaipunyam*, could not rival the popularity of the clinic run by the non-specialist doctor. In the case of fevers and related bodily pains, the dispensation of medicines becomes detached from its ‘prescription framework’ – something which gives conventional medical authority power in an OP clinic – and is resituated within a rights-based regime, where what matters is not the ‘access’ to the doctor but the ‘right’ to medicines.



The above poster of a “Health Fest”, organized in 2010 in a nearby village of Keranaad, exemplifies this situation. The event was a free of cost, allopathic, homeopathic, and ayurvedic medical camp. It took place when ‘fever politics’ was just unfolding in Kerala and a popular politician, who is also a member of the state legislative assembly, inaugurated the event organised under NRHM. The poster states that “there will be special treatment for those affected by chikungunya”. Notable in the notice is the reference to *marunnu vitharanam*, which can be translated to English as “the distribution of medicines”. The logic that underpinned this local event later became part of state policy and was applied to other diseases. In 2012, the state health department formulated an ambitious healthcare scheme, which according to the official web portal of Kerala Government¹⁵⁵ was for the purpose of “distributing generic drugs free of cost to all patients in Government Hospitals.” The scheme aimed to freely “distribute” 820 generic drugs through the OP clinics in the government hospitals, particularly PHCs.¹⁵⁶ It was highlighted as an example of the pro-people initiatives being undertaken by the ruling government in the health sector. On 29 September 2013, Mrs. Sonia Gandhi, the all-India president of the ruling Congress party in Kerala, officially inaugurated the scheme at the state capital and it came into effect from October 2, the birth day of Mahatma Gandhi.

¹⁵⁵The Official Web Portal, Government of Kerala. (n.d.). Retrieved on September 25, 2013, from http://www.kerala.gov.in/index.php?option=com_content&view=article&id=4562&Itemid=2286

¹⁵⁶The Hindu, 30 September 2013

The healthcare domain of Kerala, described in Chapter One, is understood in Weberian terms as a terrain of instrumentally rational action directed towards seeking health care services. Increased access to hospitals and doctors is premised alongside the right to development and arguably should be a matter of instrumental action. The demand for healthcare, therefore, constitutes an essential attribute of the “Model Kerala Citizen”. It becomes an extension of the political demand for development, and the democratic rights of citizens to have a state that adequately cares for them. Diverted by a reductive political economy logic, the rational instrumentalist framework that dominates the healthcare literature on Kerala is unable to fully address the complex shift from the doctor-patient relationship to the medicine-patient relationship that is happening against the backdrop of the fear of fever. In many of the new OP clinics, the perceived causal factor affecting healing is not the doctor but the medicines. Here, the fetishistic object is not the doctor and the healthcare machinery, but the medicines “distributed” through it. The medicines embody a technological rationalism that has a utopian quality that can counteract the inefficiencies and incapacity of Kerala’s renowned public health machinery in managing the epidemic crisis. The personal quality of healing has not disappeared but has to renegotiate and inscribe its authority and power within this fetishism of medicines.

This thesis has explored the ambiguity and ambivalences that result from the alliances and contests surrounding different ways of articulating medical diagnostic power and authority. Such transformations are supported by other informal, popular bodies of knowledge that range from conspiracy theories to a celebration of personal intuition grounded not in science but a knowledge of human emotions, habits and nature. It has identified certain new models of citizenship that are being reaffirmed within global movements and which are reconstituting the boundaries of work, health, family, politics and culture. Fever panics and politics grew because they embodied many struggles, anxieties and forms of suffering. These ranged from labour emigration, changing gender relations, changing forms of work, class and caste forms of suffering, a growing elderly population, and increased importation of goods and people. A need arose to articulate the semblance of structures of rational control and to reassure the population that there were in place plans, medical personnel, health institutions, medicines, a desire to care, and a will to control contingencies. Like the War on Terror, fever politics expands the state into the social body, whilst also mobilising and transforming the social body so that the population becomes increasingly medicalised, self-disciplined and self-policing.

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