DEATH IN THE TIME OF SAVING LIVES: THE CHOLERA EPIDEMIC AND HUMANITARIAN GOVERNANCE IN BANGLADESH

SAYDIA GULRUKH KAMAL

A dissertation submitted to the faculty at the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Anthropology Department at the University of North Carolina

Chapel Hill
2016

Approved by:

Peter Redfield

Arturo Escobar

Barry F. Saunders

Sumathi Ramaswami

Jocelyn Chua

ABSTRACT

Saydia Gulrukh Kamal: Death in the Time of Saving Lives: Cholera Research and Humanitaran Governance in Bangladesh
(Under the direction of Peter Redfield)

"Histories of cholera exist in a reciprocal relationship with science. Knowledge of cholera is changing quickly; new findings invite a new history, which will feed back on how we think about cholera in the present." So Christopher Hamlin (2009) concluded in his historiographical account of cholera as a disease with global ramifications. The discussion and analysis presented in this dissertation substantiates Hamlin's hypothesis, additionally developing a particular account of cholera in Bangladesh. The scientific advancement in the understanding of fluid loss in a cholera patient and the discovery of a rehydrating solution slowly changed public perception of the disease in Bangladesh. A massive nationwide campaign to disseminate this new knowledge chased away the fear of death from cholera and diarrhea. This dissertation offers a new history of cholera, charting its descent into the realm of the ordinary in Bangladesh.

Despite a significant decline in the incidence of cholera cases, the scientific gaze and governmental attention in Bangladesh continue to focus on the disease. Recognizing cholera prevention programs as fetishized objects of national and transnational attention, this dissertation shows how facts of cholera and diarrhea—their incidence and prevalence— have historically dominated public health missions of Bangladesh, creating the categories of preventable death and savable lives. Cholera research and prevention programs do not sanctify human life in general; rather, they selectively fulfill a right to live only when the life saved fits within the

purview of regimes of global health, and so could reflect on the state and non-state actors' performance as managers of life. In what follows, this dissertation examines the way these programs operate as an infrastructure of distributing governmental attention and resources rather than as a system of providing more comprehensive care for the people in poverty. Drawing on ethnographic fieldwork in Shatnal (Chandpur, Bangladesh) and the intimate realities of public health there, including everyday stories of living and dying and the extensive social vocabulary used to describe cholera and other forms of death, this dissertation records the government's asymmetrical care for the dying and ill, revealing the production of inequalities between different kinds of life and death.

To

Ma-Mita, Shamim Mahipara Kamal

Amma, you were wired up with many machines. Chest tube. Tracheostomy tube. Central venous Catheter. Low blood pressure. Irregular heart rate. One day, in that half-lit intensive care unit, you wrote on a paper, “I will not die here.” Friends and family in our lives believed in the biomedical story of the moment. You did not. Thank you for always telling us stories untold. Thank you for teaching me love, laughter, mourning empathy and endurance.

and

Sumaya Khatun
Thank you for teaching me how to become a mother

ACKNOWLEDGEMENTS

I was trying to sit comfortably on a minibus – Matlab express. At each turn, I thought I would fall down from my seat, but I never did. The passengers were mercilessly swearing at the underage bus-driver. Half way through the journey, the scuffle between the driver and the passengers reached its peak. The driver abruptly reached for the break, our head almost hit the roof of the bus. He turned around, and said, *"bancha morar hishab oto shoja na, oto doran kyan.* (The calculous of life and death is not that easy. Why so scared)?*"* In later months in Shatnal, I came to recognize the significance of this first encounter. My first debt of gratitude is to the unknown bus drivers, boatmen, *shareng* (water-taxi driver/launch captains) whose wisdom and vision provoked the thoughts and arguments presented in this dissertation.

At each of my research stops from Shatnal, Matlab, Chandpur to Dhaka, to Berlin, to Atlanta and New York I was fortunate to have friends and hosts wait for me. The chapters that follow make a far better chronicle of my debts to the villagers, researchers, journalists, researchers, community health workers, public health experts, activists than I could write here. Thank you for not only opening your doors and offering countless meals, but also sharing your understanding of public health and cholera epidemic in Bangladesh. I am particularly indebted to my sisters who shared their philosophy of life, death and illness on hot summer nights in Shatnal. I came out so much richer and content in life through these interactions than I could describe in this dissertation.

My time at Chapel Hill is especially important to me. I want first to thank my dissertation committee members for teaching me about the links between scholarship, intellectual

community, and politics. As a graduate student, I took many unconventional turns and pauses. In this journey, Peter Redfield has provided me with an essential component – trust. He has been a trusted advisor and gracious colleague. He has cultivated me with patience, wisdom, and hope. Arturo Escobar's commitment to other ways of knowing opened new spaces to think and act as an anthropologist from Bangladesh. Even in a dark time, his mystical optimism enriched this work and my life. Barry F Saunders did me the favor of carefully break open the concept of death and giving me a way of approaching questions of life and death as folded together. I must thank Sumathi Ramaswamy for nurturing my historical imagination and for her fine grained reading of many versions of this project. Jocelyn Chua guided me through writing grants, complexities of fieldwork and translating ethnographic experience into a dissertation. Terry Evens support and incisive commentary sharpened my thinking immeasurably. I am *ajibon hrini* to them for being model mentors.

The circle of my dissertation committee has an extended arm to include Stacy Pigg, Laura Wagner, and Brian D. Stacy Pigg taught me how to imagine writing as a process of weaving. There are threads of many colors of life. In writing, we make patterns, designs, and tell stories of relationships, resistances and regimes. Laura Wagner is my soul sister. Together, we plan to write satire and so much more about the international politics of intervention in Bangladesh and Haiti. Brian D introduced me to the world of contemporary anarchist spaces and practices of critical thinking. I owe a particularly important debt to all of you for reading all or parts of the dissertation in great detail. I will never be able to express how grateful I am for all the time and care you have put into reading, editing, and then often rereading and reediting.

Many of the materials gathered in this dissertation would have never fallen into my hands were it not for the dedicated work of numerous librarians and archivists. I would like to thank

archivists and staff at various archives: Robert Koch Institute, Berlin; National Archive of India, New Delhi; National Archives of Bangladesh, Dhaka; and, Bangladesh Central Public Library, Dhaka. Eminent scientists A K Mansur's family provided me access to his family archive. I would like to particularly thank Delowar Hossain for helping me sort through many boxes of material from his family archive. Part of the archival research was supported by Social Science Research Council's pre-dissertation funding. I would like to thank them for their generous support to my research project.

I have an unfortunate relationship with any bureaucracy. This relationship took a worst turn during my time at UNC – Chapel Hill. Each semester, I have somehow managed to create an emergency situation where my registration is about to get cancelled or something similar. And, each semester I have been rescued by Suphronia Cheek, Matt McAllister, Shamecia Powers, Irina Olenicheva and Katie Poor. I am particularly thankful to Silvia Tomaskova for magically navigating university bureaucracy for me.

I am thankful to the presence of friends and graduate colleagues in Chapel Hill/Carrboro without whom I would never have reached this moment. I thank Erica A. Scott, Vincent Gonzalez, Clarisa Mondejar Valdespino, Amelia Fiske, Dragana Lassiter, Paul Schissel, Eloisa Burman, Amanda Black, Ahsan Kamal and Dayuma Alban for invigorating me with their intellectual passion and humor. I am particularly indebted to Dayuma Alban and Ahsan Kamal for co-laboring in grief as we mourned the loss of human and non-human lives in Amazonia and South Asia.

My family patiently supported me as I have struggled to manage my varied ambitions and geographically distributed life in Dhaka, Chapel Hill, Sebring and Winnipeg. Adlul Kamal, Asfia Gulrukh, Maliha Mehbub and Wahid Palash – my siblings suffered through my silences as I

wandered off to Shatnal for fieldwork. Asfia single handedly shouldered the responsibility of our critically ill mother during the writing of this dissertation while she herself wrote a wonderful dissertation on environmental justice. Chompaboti, Samin and Samia – my daughter, nephew and niece literally grew up to be gorgeous and thoughtful teenagers with this dissertation. Born in a different time, they were the first to notice the ordinariness of cholera that I am alluding to in this dissertation.

I am grateful to Majeda, Romija, Tara Mia and Abdur Rob for their precious wisdom and continual good humor. With exceptional patience they have shared their views of life, death and illness which have a decisive influence on the development of this dissertation. Particularly, the chapter on the calculation of health risk (Chapter IV) greatly benefited from many conversations I had with Majeda.

The chapter on the Global Handwashing Day (GHWD) was presented at a seminar in the Department of Anthropology, Jahangirnagar University. I would like to acknowledge the useful comments and questions posed by audiences. A version of this chapter is also published in Bangla as part of the *Public Nribiggan* series (February, 2016). The members of *Public Nribiggan* collective (Rahnuma Ahmed, Sayeed Ferdous, Mirza Taslima, Sadaf Noor-e-Islam, Sayema Khatun and Nasrin Khandokar) read the draft manuscript with great care and provided me with editorial comments and suggestions to substantiate my argument. I have been lucky enough to find trusted mentors and dedicated friends in the collective whose paths I have crossed at the Department of Anthropology, Jahangirnagar University.

Rahnuma Ahmed, a life-giving teacher, a comrade opened many doors before us that we did not know existed. She taught us anthropology. She taught us life. From her, we inherited

grace, courage and critical awareness. Someday, I hope to write a book worthy of offering as *gurudakhshina*.

Thotkata bloggers (Shahidul Islam Sabuj, Naeem Mohaimen, Hana Shams Ahmed, Udisa Islam, Nazneen Shifa, Nasrin Shiraj Annie, Mahmudul Sumon and Samari Chakma) and researchers at Activist Anthropologist (Mahmudul Sumon and Nazneen Shifa) are my comrades in projects of radicalizing intellectual labor.

Aparna Sindhoor, Shahidul Islam Sabuj, Quamrul Hasan and Samari Chakma are the sound of my sigh and laughter. I am indebted to them for teaching me about the infinite depth of friendship and intellectual companionship. They walked miles with me under the scorching sun and stormy winter nights. In the days, when I was feverishly editing the same paragraph, Quamrul reminded me that there is a world outside of this academic writing. Aparna promised to co-author a screen play based on love stories we have collected during our dissertation fieldwork. Sabuj bhai bullied me for taking too long to write a dissertation. Samari never hesitated to comment on my procrastinating tendencies as manifestation of my social privileges. All four of them mocked my seriousness as graduate student. Their words prompted me to see the undue weight attached to a dissertation. In their own distinctive ways, they told me, "this is just a dissertation."

Bruce Currey and Stephen Minkin showed unwavering confidence in me and uncommon commitment to my work. Through their works and words, I learnt so much about a dark episode in the history of Bangladesh – the famine of 1974. It is through their narratives I came to recognize that stories of cholera were never "just about cholera." It is always an entangled one.

The writing of each chapter was interjected with death that I have not written in this dissertation. The news of blogger Avijit Roy's murder appeared on my screen when I was

writing the prologue. I was rewriting parts of the chapter on saving lives with soap when publisher Faisal Abedin Deepon's father found his beheaded dead body at his publishing house. As I was playing with the last few paragraphs of this dissertation, Irfanul Islam was killed. A week before the public defense, Xulhas Mannan was hacked to death in his home. Your deaths mark the inseparability of writing, mourning, dying and living. Your deaths mark a particular reality that I have hinted as a post 9/11 Bangladesh in this dissertation. I must apologize to you for my inability to write more and engage in greater depth with the regime that took your life. I apologize for my intellectual inadequacy, unpreparedness to respond to the global "war on terror" that is shaping our world today.

Rahnuma Ahmed, Shahidul Alam, Nurul Kabir, Anu Mohammad and Usama Ansari are my lifelines. How does one ever express enough gratitude to those who infuse one's very being? Thank you for being you.

I am what I am because of who we all are. Thank you.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF ABBREVIATION

AL – Awami League

ASCON – Annual Scientific Conference

BNP – Bangladesh Nationalist Party

BRAC – Bangladesh Rural Advancement Committee

BTV – Bangladesh National Television

CCH – Chittagong Cantonment Hospital

CHW – Community Health Workers

CIA – Central Intelligence Agency

CIPRB – Centre for Injury Prevention and Research, Bangladesh

CPD – Center for Policy Dialogue

CRL – Cholera Research Laboratory

DGHS – Directorate General of Health Services

DPHE – Department of Public Health Engineering of Bangladesh

GHWD – Global Handwashing Day

HA – Health Assistant

HDSS – Health and Demographic Surveillance System

HRMNC – Health Rights Movement National Committee

ICDDRB – International Center for Diarrheal Disease Research, Bangladesh

ICMRT – Indian Center for Medical Research and Training

ICVB – Introduction of Cholera Vaccine in Bangladesh

IDRC – International Centre for Drowning Research

IPH – Institute of Public Health

IVI – International Vaccine Institute

LGED – Local Government Engineering Department

LMF – Local Medical Faculty

MCH – Maternal and Child Health

MDG – Millennium Development Goal

MHFW – Ministry of Health and Family Welfare

MOU – Memorandum of Understanding

MSF – *Medecins Sans Frontieres*

NAMRU – Naval Medical Research Unit

NCD – Non-communicable Chronic Disease

NIH – National Institute of Health

NIPSOM – National Institute of Preventive and Social Medicine

OR – Operational Research

ORS – Oral Rehydration Saline

ORT – Oral Rehydration Therapy

PAHO – Pan American Health Organization

PHC – Primary Health Care

PPPHW – Public-Private Partnership for Handwashing

PIL – Public Interest Litigation

SDG – Sustainable Development Goals

SEATO – South East Asia Treaty Organization

SEE – Studies in Expertise and Experience

SHA – Senior Health Assistant

SWA – Staff Welfare Association

UHC – Universal Health Coverage

UN – United Nations

USAID – United States Agency for International Development

VD – Village Doctor

WHO – World Health Organization

GLOSSARY OF BANGLA WORDS

ajrail – the angel of death

altu-faltu kotha – silly exchanges

amin – local map maker

ashol bipod – true risk

ayah – cleaner

azaira – unnecessary

bakkor-sakkor – meaningless repetition

beparda – improper, without head cover

bhotbhoti – a farm vehicle (commonly used for tillage) is often used to carry passenger in Matlab

boka choda – dumb fucker

byapari – broker/patron

chumbok – magnetic

deshprem – patriotism

doinondin jor-jari – everyday illness

uiba mora – death from drowning

genda – infant son

jabda khata – red notebook

Jhunki – risk

jhunkipurno – risky

kantha – quilt

khun – murderous death

moshla bata – manually grinding spices

muktijoddha – freedom fighter

opoghate mrittu – unnatural death

patla paykhana – watery stool

porar moron – unfortunate death

poush mela – autumn festival

sadar – township

shareng – water-taxi driver/launch captains

shavabik mrittu – natural death

tomtom – battery operated three-wheeler

PROLOGUE: THE LIFE AND DEATH OF ALI AHMED

I

Figure 1 Local people gathered at the collapsed tiger statue, stain of blood underneath it is still fresh. I have walked by this statue every time I visited the International Diarrheal Disease Research Center, Bangladesh (ICDDRB). Sonargaon intersection, Dhaka, August 2015.

The Royal Bengal tiger did not stalk its quarry from the rear to get as close as possible. It did not inch forward gradually to reach a distance at which it could charge ahead and grab its victim without any chance of escape. It did not pounce on its prey, use its front claws and mighty jaw to grab a vulnerable neck, ripping out the throat. That morning in Dhaka, the Bengal tiger stood still with her cub at the intersection of Kawran Bazaar, a gleeful expression unusual for her species playing across her face. Her body was not flesh and bones, but cement and iron rod, and she stood in stiff salute to the magnificence of the city, just as she had since welcoming world class

cricketers to Dhaka in 2011. Until that morning, she had provided shelter to passersby from scorching sun or pouring rain. She offered shadow in summer, warmth in winter to win trust of a floating population of working class men. Then at last came that morning when Ahmad Ali (42) stopped paddling his three-wheeler van and took shelter from rain underneath her. As soon as he fell asleep, the statue of the Bengal tiger collapsed on him, crushing him to death (August, 2015). All this while the smaller statue of tiger cub stood undisturbed overlooking the incident, perhaps biding her time. In two hours, police officers lazily walked towards the site, and yelled at the crowd. They hired two day laborers to clean the site, wash out his spattered blood and flesh from the road. They made important calls to the Dhaka South City Corporation office asking where the remains of the tiger statue should go. Should they try to put it back up on its pedestal? They met with journalists, and answered their questions, "The statue collapsed due to the weakness of its foundation, and poor material used in the construction process," they said. "We cannot speak for certainty; an inquiry committee is formed to investigate the matter."

The dead man's blood drew a map of no country as it trickled across the pitch surface. I looked at the map. The crowd stared at the splattered flesh and blood, capturing this surreal encounter in their camera phones. A boy leaned on the stomach of the tiger, tilted his head to look at its eyes. I followed his gaze. The pair of eyes reminded me of the goddess *Durga*, whose gaze projects a similar hint of kindness and gentility to defuse its ferocity. A stray ethnographer's mind wondered. Perhaps, temple based Hindu artists are now making a living painting eyes of animal statues at zoos and various intersections of Dhaka, since so few Hindu neighborhoods and temples survived the silent migration. In this process of writing a dissertation, a project of translating the chaotic, unruly experience of collecting data into an academic endeavor, I have learned to put my wondering mind on a leash and discipline my thought. I have asked myself

what this rather ordinary story of unremarkable death of a rickshaw-vanpuller from the collapse of a tiger statue has to do with stories of cholera epidemic in Bangladesh.

Ahmed's body was not the only interruption of my ethnographic journey. Dead, bloated fish floated upside down alongside a capsized launch in Meghna (February 9, 2013).[1] Shaheena, Meherun, Sohel, and nine members from the same family of Muktirkandi, Matlab accompanied them. I paused. I breathed. I was perplexed. How can accidental deaths interrupt stories of saving lives from cholera epidemic? Public health commonsensical knowledge does not approve such pauses (Rylko-Bauer, Whiteford and Farmer, 2009). I noted these events only because they erupted directly in front of me, causing me ethical angst over how to intervene as an ethnographer. In desperation, I would turn on my recorder, I would record with whatever means I had. I only recorded what I saw, heard and was told in given moments. I did not look for more information about Ali Ahmed's life. I do not know if he had children or a mother waiting for him or not. However, these unexpected encounters led me to document more systematically the missing link between the social production of loss and suffering and the management of public health. Through such encounters, I have come to uncover hidden horizons of death in the time of saving lives (Fassin 2009).

II

Ali Ahmed hailed from the rural district of Dinajpur. For three days his remains awaited the arrival of relatives to claim them. His brother-in-law was his only link to the city; however, at the time of Ali Ahmed's death he was not around. After three days Anjuman Mufidul Islam arranged his burial. He was identified, but buried unidentified. No one he loved attended his last walk.

[1] During the span of my fieldwork in Shatnal, three major launch capsizes took lives of 200 people, most of whom were from greater Matlab. Within weeks of my stay in Shatnal, a two-storied launch, the M V Shariatpur 1, collided with a cargo ship and sank in the Meghna river.

Strangers accompanied him to his grave. There was no public outrage on Ali Ahmed's death. No police case was filed recording it as "unnatural death" with unnamed perpetrators. I don't know if his family ever found his grave and visited him at the public graveyard in Dhaka. Perhaps, this burial in a place other than his village is the final abandonment for him. In my field work, I did not actively seek to document such violent deaths caused by the staggering indifference of the global and national ruling elite. I was investigating the ways a transnational scientific establishment, the International Center for Diarrheal Disease Research, Bangladesh (ICDDRB, hereafter the Center), generating knowledge about cholera/diarrhea, perpetually constructed and reconstructed the diseased national body and organized the biopolitical agenda for Bangladesh as a nation state (Hogle, 1999).[2] In what follows, I was engaged in ethnographically documenting the socio-scientific processes through which a cholera epidemic, a dark character of disease, illness and suffering becames primary factor in negotiating the political legitimacy and sovereign existence of Bangladesh. To this date, I have remained intrigued by the way sufferings from the cholera epidemic are insidiously a productive force in designing Bangladesh's geopolitical relationships and devising its biopolitical commitments (Kleinman, Lock and Das 1997; Petryna 2002; Ticktin 2011).[3] At times I think the declaration of independence might be a morbid fantasy from Edgar Allan Poe's *The Masque of the Red Death* (1842), which narrates Prince Prospero's

[2] In her riveting historical account, *Recovering the Nation's body* (1999), Linda Hogle illustrates how in the post-unification Germany the specter of Nazi medical experimentation still plays a large role in national policies governing treatment of both living and dead bodies and the way these policies are put into practice. In their efforts to distance themselves from the atrocities of the past, German medical practitioners and policy makers articulating a strong opposition to bodily violation, organ and tissue procurement construed the body as a site of national redemption.

[3] Contemporary ethnographic accounts and theorization of social suffering shows how suffering and pain are transformed into a governable domain of life through the immigration policies in France (Ticktin 2011) or the emergence of biological citizenship in the-then Soviet Ukraine (Petryna 2002). In both of these instances suffering become coinage to stake claim to material resources and citizenship status. In the context of Bangladesh, a "diseased national body" becomes productive in the management of international relations and foreign affairs.

imaginary escape from an unusually and hideously fatal plague, and thus reveals power's obsession with conquering corporeal pain and mortality.[4] This obsession gives an inkling of what Michel Foucault later had defined as "biopower," also expressed in various cholera prevention programs in Bangladesh. My research curiosity revolved around the ways global and local actors and resources are mobilized to escape death, to foster lives, to optimize the health of the public and to define what would be the public health mission and vision for Bangladesh. From a methodological perspective, when investigating this political compulsion to save lives that defined the contemporary time in Bangladesh, I followed the trajectories of governmentality scholars (Arnold 1993; Scott 1995; Peterson and Bunton 1997). I was looking at life, death and suffering at the level of population until I met with a fallen statue of a Royal Bengal Tiger, Ali Ahmed, and many others who faced similar fate.[5] I become aware that the regulation of life of the population inadequately addresses the production of inequalities between different kinds of life and death (Biehl 2005; Fassin 2007; Pandian 2009; Das 2006, 2015; Singh 20015; Das and Han 2016). Then, the politics of life is not only a question about governing life (Collier and Lakoff 2005), but also about unequal distribution of value accorded to life and death. Through

[4] Edgar Allan Poe took his historical cue from the devastating stories of Black Death and bubonic plague to write *The Masque of the Red Death* (1842). Prince Prospero and the nobles of his Court took shelter in the walled Abbey to fend off the mortal plague while half of his dominion was depopulated from Red Death. Prospero's indifference towards the suffering of his subjects/population is somewhat a misplaced reference for the story of biopower, I want to tell. However, the description of the castellated abbey and the meticulously decorated seven rooms in which the Masquerade took place reminded me of the neonatal intensive care unit at the ICDDRB. In this unit, newborns suffering from diarrhea are all wired up. They are breathing through experimental low-cost bi-pap machines. They are breathing and beeping their last few sighs to save future lives. I thought of international conferences at plush five star hotels on cholera and diarrhea prevention as well. In the masquerade ball of most unusual magnificence, Red Death found Prince Prospero to take his life. The story is an allegory of the inevitability of death; I found a similar allegory in the modern projects of savings lives where populations at risk are governed, not saved.

[5] In a productive critical engagement with Michel Foucault's theorization of biopoltics, Didier Fassin (2009) argues that an exclusive attention to the government of population homogenizes lives. As a consequence, biographical lives remained largely outside of the realm of Foucault's analysis. Drawing from his ethnographic experience in South Africa, he argues that "life is not only a question of politics of seen from the outside, through the lenses of the state, of institution, of statistics, of immigration policy, but also should be seized from inside, in the flesh of everyday experience of social agents, immigrants and refugees, those who suffer war and poverty (p.57)."

these stories of deaths, I have come to recognize a politics of lives that do not count. Walking on the unmarked mass gravesite of victims of launch capsize with a community health worker in Shatnal, I find a complex ontology of inequality unfolding in front of me that "differentiates in a hierarchical manner the value of human lives" (Fassin 2007, p.519).

III

Kushum's life was saved. I must interrupt the story of Ali Ahmed's structural abandonment with the case of Kushum's life saved at the Shatnal Diarrhea Care Center (partially supported by ICDDRB, hereafter referred as the Center in Shatnal) to understand this tension between saving and not saving lives that defines the biopolitical agenda for Bangladesh. Kushum, a five-year-old girl, suffered a ruthless bout of diarrhea. Both her parents were working as daily wage laborers at a nearby soybean field. Her grandmother, Azizunnesa gave her some homemade Oral Rehydration Therapy (ORT). She was not worried. A nationwide network of public health programs on diarrhea prevention chased away fear of death from diarrhea from the mind of the people of rural Bangladesh, by equipping them with knowledge about preventing it and managing it when affected. Yet Azizunnesa was shocked to see how in few hours Kushum was severely dehydrated, her eyes sank, tongue swelled, even before her parents returned home in the evening.

Azizun was convinced that Rehana was dying. When her son Salam came home, she was sitting on her prayer-mat by Kushum's bedside, reciting from the Quran, pleading for Ajrail (the angel/*fireshta* that takes life) to make her last breath painless. Salam had a ferryboat. To earn a little extra, sometimes he would carry passengers from either side of Meghna. He carried his daughter in his arms, rowed his paddles as hard as he could to take her to the Center in Shatnal.

There, a community health worker, Dijen Sen saved her life through a successful administration of intravenous saline.

Azizun, Salam, and his wife Ruki – all three of them told me this story with vivid description of every moment of her illness. Each time, their eyes lightened up in gratitude when they talked about how Kushum asked for *bhat ar shutkibhorta* (rice with spiced dried fish) next morning. While the micro-level mismanagement of life causing the death of Ali Ahmed does not reflect on the performance of national government for a global audience, Kushum's story of survival counts in the statistical story that proves the Bangladesh government's monumental success in administering an effective public health program. Her life saved in a remote corner of Bangladesh is part of a statistical narrative of significance. She is one of the 50 million lives saved globally by the Center in the last 30 years. Children still die from diarrhea, but death from it is deplorable, and unacceptable. By contrast Ali Ahmed only evoked nothing.

These two stories trace the preferred territories of (national and transnational) governmental action and inaction. Told together, these stories helped me to recognize cholera prevention programs also as fetishized objects of national and transnational governmental attention. I became able to see how facts of cholera/diarrhea (incidence and prevalence) dominate facts of life (mortality and morbidity rate of the population) while excluding biographical experience of lives in Bangladesh. Cholera prevention programs do not sanctify human life in general; rather, they selectively fulfill a right to live only when saved life fits within their purview, and so could reflect on the state and non-state actors' performance as managers of life. Fetishistic attention to these renders invisible the weight of injustice that the body of a member of the toiling masses like Ali Ahmad carries. Taking into account the profound inequality Ali Ahmed endured, I am able to discern this fetishistic gaze of the Center

on cholera and theorize the Center as an apparatus of distributing inequitable governmental attention across class, gender and ethnicity in Bangladesh (Crary, 2001).[6] The life and death stories of Ali Ahmed, Kushum, and the many buried in the unmarked grave site in Shatnal, together inspire me to describe the Center and its projects of saving lives as an aporia.

All subjects carrying the same class disposition as Ali Ahmed are potentially if not actually abandoned by the state if exposed to any death other than cholera/diarrhea death. Yet they are not always abandoned. When they suffer a disease of public health concern, they are rescued. Life is otherwise disposable, and death is tolerated. Drawing theoretical insights from Zygmunt Bauman's (2004) social theory of wasted lives, João Biehl's (2005) ethnographic expose of a zone of social abandonment, Peter Redfield's (2013) conceptualization of minimal biopolitics and Henry A. Giroux's (2006) proposition of a biopolitics of disposability, in this dissertation I ask: how does the humanitarianization of national health facilitated by the Center define and determine savable lives and preventable death? How does it effectively narrow the significance of life to forms of death?[7]

IV

In search of good life, Ali Ahmed came to Dhaka. There he died a *porar moron* (unfortunate death).[8] An old man also gathered with others around the fallen statue kept saying, *bala moron*

[6] In his work *Suspension of Perception* (1999), Jonathan Crary continues the meditation he began in *Techniques of the Observer* (1990), on the changes modern society and culture have effected in the manner of attending the world, both in theory and in actuality. He attempts to sketch some outlines of a genealogy of attention since the late nineteenth-century and to detail aspects of a fundamentally different regime of attention. He argues that modern distraction can only be understood through its reciprocal relation to the rise of modern attentive norms and practices and defines these norms and practices as regime of attention/inattention.

[7] In his work *Stormy Weather: Katrina and the Politics of Disposability* (2006), Henry A Giroux reads hurricane Katrina as a crisis beyond the failure of leadership and the public institutions. His reading proves Didier Fassin's (2009) claim about how the Foucaultian emphasis on "the art of governing is precisely a process of homogenization of life" (p.54). Giroux introduced a new concept — the politics of disposability "to render visible how entire populations marginalized by race and class are now considered redundant, an unnecessary burden on state coffers and consigned to fend for themselves (p.16)."

naire kopale, bala moron nai (good death was not written for him). His words resonated among the crowd. In Shatnal, I heard the echoes of his words. The extensive social vocabulary to describe forms of death expresses a collective desire to die in care: cholera/preventable death, unfortunate death, *shavabik mrittu* (natural/normal death), *opoghate mrittu* (unnatural death), *duiba mora (*launch-capsize death), *khun* (murderous death), cross-fire death, and good death (Das 2006; Das and Han 2016).[9] Contrary to preventable death, a good death is not a matter settled once and for all in any particular form. It is about dying in loving embrace. It is about the right to be buried in your own land. It is also about the governmental care for the dying. In this dissertation, I use forms of death as a sampling device to reflect on the oscillating valuation of life and death (Whooley 2013).[10] I use cholera/preventable death as a lens to explore the distribution of mortality in a population and the government's asymmetrical care for the dying and ill. I take advantage of the fact that cholera still constitutes the core of governmental concern in public health of Bangladesh. Cholera remains in the center of public health perception of preventable death. It allows me to tell a story of humanitarian politics of life in ordinary time (Fassin 2016; Redfield 2013).[11]

---

[8] In Bangla to describe the fate of a destitute person, s/he is often referred as a *pora* – a dead person on the cremation table. To follow this symbolic reference, a more accurate translation of *porar moron* would be the death of already dead person.

[9] My use of the concept of forms of death is indebted to Veena Das's (2006) theorization of forms of life. In *Life and Words* (2006), she asked, what is it for humans to have a life in language? Following her, I document these biographical narratives of death to unsettle the fixed, decided realm of preventable death.

[10] There exists a rich tradition of using cholera as a sampling device to study larger social phenomena. For example, Charles Rosenberg (1987) explores the secularization of American society by showing how the understanding of cholera evolved from the scourge of the sinful to a consequence of remedial faults in sanitation. In *Cholera and Nationhood* (2008), Pamela Gilbert used cholera as a lens to examine cultural norms of Victorian England. In *Knowledge in the Times of Cholera* (2013), Owen Whooley used cholera as a sampling device to explore the intellectual crisis within medicine in the early nineteenth century America. Similarly, I have used it as sampling device to asymmetrical distribution of governmental care for its citizens in Bangladesh.

[11] Didier Fassin (2007, 2009, 2016) and Peter Redfield (2013) through their sustained ethnographic interest in the politics of humanitarian intervention carefully traced this contradiction. While an idea of sacredness of human life constitutes the moral impulse to intervene in the moment of crisis, in practice people's life in different categories are

V

My own naiveté haunted me as I had always thought cadavers have a way of insinuating themselves on consciousness, demanding answers to questions that often go unasked. Not anymore. Ali Ahmed awaited a relative to claim his remain from the morgue. In the evening, as I was returning from the ICDDRB, there was barely any trace of lost life at the site. I cannot blame this societal inability to pay attention to an ordinary tragedy on the infrastructure of public health alone. Nicholas Mirzoeff (2005) has described our contemporary society as one of the anti-spectacle, in which such deaths spark momentary disgust towards the system of indifference that soon disperses as we move on. We do not hold our gaze, our attention long enough to meditate on such life events, nor do we recognize the poverty of our language to describe them. I consider writing of this dissertation a return to this meditative process. Thus, I interject between each chapters that follow this narrative with stories of deaths that barely count.

I take the rest of this prologue to introduce the Center as this dissertation in the end is devoted to telling a story about the reciprocity and disputation among humanitarian science (of the Center), nation state and people. I first briefly describe the evolving history of the Center from its early moment of conception to its most recent form. In this history spread across different political regimes, the Center has also expanded and moved between different spaces. Therefore, my discussion includes the geography of the Center. Finally, I illustrate the Center's claim to humanitarian science. How does it practice objective science with a subjective mission? In the organization of this dissertation, these practices are crucial. Each chapter focuses on a specific moment of humanitarian science in action (and inaction) (Latour 1986), from making history to saving lives with soap.

---

assigned different value. In the same vein, I extend their analysis to show how the contradiction exists in the everyday practice of public health.

VI

It was December 1960. Dhaka was struggling to settle under a new intercolonial Pakistani regime (1947-1971) when a two-day conference was organized in a "crusading spirit against cholera" (Conference on Cholera, 1960, p.5). The conference was organized to inaugurate the Pakistan SEATO Cholera Research Laboratory.[12] Gathered at the event were medical diplomats, physicians, bacteriologists, and epidemiologists representing the South East Asia Treaty Organization (SEATO) states as well as scientists from Japan and India. The Health Secretary of the government of Pakistan was among the distinguished guests at the event. In the audience, there was A K Mansur, the head of Institute of Public Health (IPH), Dhaka sitting with his other Bangali staff from East Pakistan. Many in attendance at the event later joined the newly established laboratory.

"In this hospital we treat free of charge all patients with diarrhea and study how to better treat and prevent cholera. All patients will take part in these studies for their own and their countrymen's benefit" - so declared a banner hung from the walls of Institute of Public Health in Dhaka. Scientists debated their views on the pathology and pathogenesis of cholera, medical diplomats shed light on why a defense organization was extending its hands to assist in the eradication of the disease, and health bureaucrats of Pakistan expressed their gratitude to SEATO

[12] South East Asian Treaty Organization (SEATO) was a military alliance of three Asian countries - the Philippines, Thailand and Pakistan - with the United States, United Kingdom, France, Australia and New Zealand. In 1958, SEATO expanded its mandate to include the socio-economic concerns of the time. The treaty then contained an additional article - Article 3. This article pledged the participating countries "to assist each other and by self-help and mutual cooperative effort, to change standards of their own people and to bring economic and social progress to their countries" (Heningen and Seal, 1987, p. 95). In 1960, the Laboratory in Pakistan was established as part of this additional article with the crusading sprit to fight the battle against cholera. However, it took two more years to start the formal operation of the Laboratory in Dhaka. See, Heyningen. W. E and Seal J.R .(1983). Cholera. The American Scientific Experience, 1947-1980. Colorado: Westview Press.

for regarding one of their health problems with such grave concern. The banner displayed at the Laboratory's inauguration alerts us to the twin conceptual foundation of this enterprise: a promise to provide charity-based medical services on the one hand, and on the other hand, a call to cholera patients to participate in a research for the benefit of their countrymen. Both cholera and the science of cholera are localized, but the effects or 'benefits' are transnational.

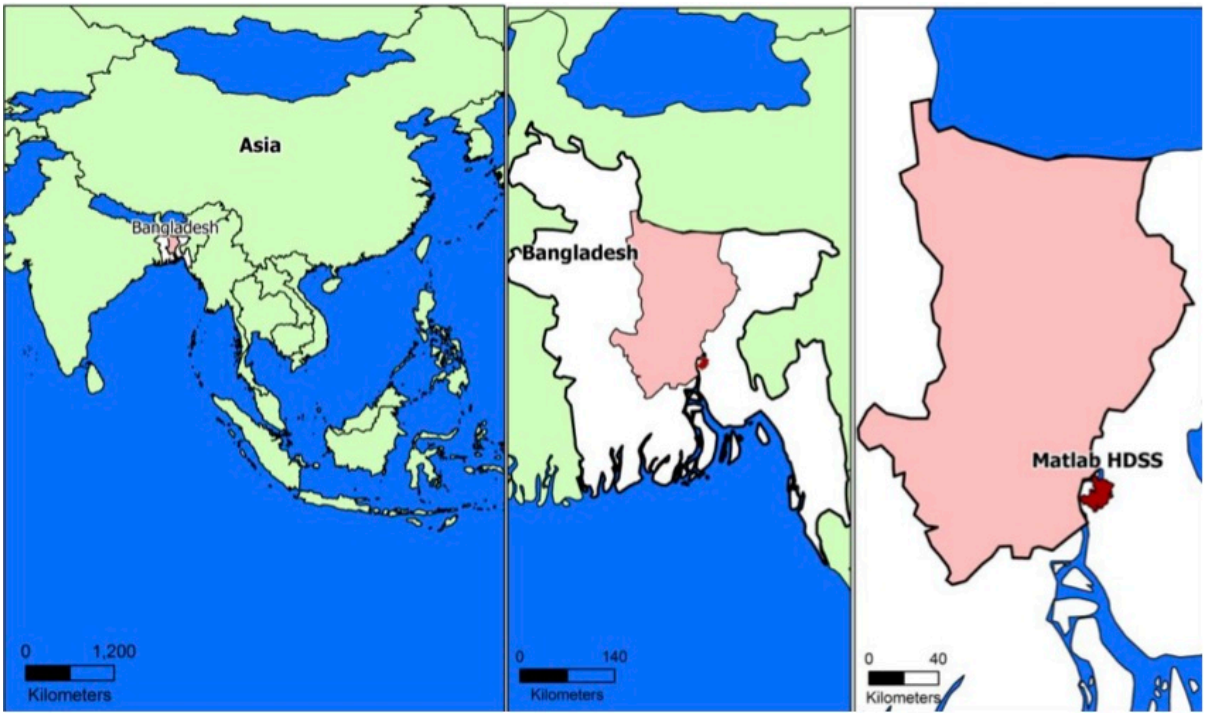

Figure 2 The INDEPTH Network has created this map to show geographical location of the Health and Demographic Surveillance System (HDSS) in Matlab, Bangladesh (INDEPTH Network 2003)

Shortly after the formal inauguration of the Laboratory in Dhaka, scientists hurried to situate themselves in a second laboratory where they could study the disease in its "natural setting": remote villages. The staff from the lower ranks of the Laboratory – whose only connection with the city was the job they had with the Laboratory, but were otherwise thoroughly rooted in village life – became instrumental in this voyage. It is through them that the Dhaka Laboratory became linked to "the field" that would come to serve as a de facto second

laboratory. After much discussion, Matlab was selected for this role. It is situated under Chandpur district of Dhaka division and about 55 km southeast of the capital, Dhaka. The main scientific activities of the Laboratory/Center are conducted in 142 villages in Matlab (Figure 2).

In the institutional context of the Laboratory/Center, scientific activities and science convey very specific practices and intentions. The Center's mission statement defines the foundation of humanitarian science as an effort to find easy, affordable lifesaving solutions, and promises to deliver it through maintaining an epidemiological surveillance system, conducting anti-cholera vaccine trial and developing model public health programs. Therefore, my use of the term science here is not generic, it is a precise reference to their definition of science.

The Laboratory/Center is historically evolving. It had gone through several incarnation and reincarnations under different global and national political regimes. It began its journey under a Pakistani regime and transformed into an international center for diarrheal diseases research in 1978. This internationalization was authorized through the enactment of a special ordinance called the 1978 ICDDRB Ordinance. In independent Bangladesh, this Ordinance allowed the Center a status that is similar to diplomatic immunity. To mark these different historical periods and transformation, I have referred to the changes in its name. Therefore, I use the Laboratory as the shorthand for its life under Pakistan and the Center to refer to the story after the independence of Bangladesh. In post-independence Bangladesh, the Center expanded its services within Matlab and nationwide. To address its geographic reach, I have added the name of the place with Center as in the “Center in Matlab,” or “the Center in Shatnal.” However, to speak of the Center as a whole I have mentioned it as ICDDRB.

INTRODUCTION: WEAVING TOGETHER STORIES OF CHOLERA, SCINECE AND HUMANITARIAN GOVERNANCE IN BANGLADESH

Telling Other Stories of 1971 [13]

Figure 3 A cholera ward in the refugee camp for people of East Pakistan during the war of 1971, India.

Bangladesh and cholera share a long and intimate history. However, the story began long before the nation was born. In colonial India, recurring cholera epidemics were a crisis for colonial administration. Its inability to protect its subjects was painfully evident in the high mortality rate within British army. Uncertainty among medical scientists and colonial administrators about the etiology of cholera exacerbated through the 19th century. It was also an occasions for subjection

[13] This section is written drawing exclusively from my research work at the National Archive of Bangladesh, Dhaka.

and resistance – both transforming the native body as a site of biomedical intervention, and organizing local response to this assault on body (Arnold, 1993; Harrison, 1994; Das and Dasgupta, 2000). Bangladesh was then colonial East Bengal.

While the other side of the Bengal was the capital under British Raj from 1773-1911, East Bengal never really garnered the interest and attention of the British colonizers. It remained in the margins of the colonial territories. Except for a fleeting mention of inoculating villagers of Dinajpur with anti-cholera vaccine, I have found no mention of cholera research or epidemic management initiatives from this period in the colonial archival records.[14] I read this as a sign of uneven spatial distribution of interest of the colonizers. In colonial East Bengal, the establishment of the Sir Salimullah Medical College was the only notable important public health investment, whereas some historically significant bacteriological research, later declared foundational for the emergence of public health governance, was conducted in colonial Calcutta. Robert Koch's discovery of comma bacillus is one of many such experimental researches (Brock 1988). The development of scientific infrastructure and installation of a larger sanitation and public health system only gained momentum during the intercolonial Pakistani regime.

The decolonization period for Bangladesh was prolonged. With the collapse of British colonialism, what is now Bangladesh entered into the regime of internal colonialism under Pakistan as East Pakistan.[15] In early 1960s, the earlier colonial epidemiological sites were

[14] See, Major H.J. Dyson, Short Note on Vaccination in Bengal, 1899-1900, Sanitary Commission of Bengal, Bengal Secretariat Press, Calcutta.

[15] Considering the similarity in the mode of governance with the colonial regime, Bangladeshi scholars termed this period as the intercolonial Pakistani regime (1947-1971). They argued that in both eras the system of economic exploitation was identical. The financial resources of the-then East Pakistan were extracted out and utilized for the development of West Pakistan. This was possible because of the unequal manner in which the two economies were tied together. The West Pakistan Central government controlled the overall economy and the regional governments had very little autonomy. There was virtually no room for independent action by the East Pakistan Government. The magnitude of the transfer of resources from 1948 to 1968/69 was estimated by a panel of economists as approximating a transfer of resources from East to West of Rupees 3,000 crores. See, Sobhan, R. (1968). *Basic*

silently transferred to the hands of US scientists. The scientific establishments in the US were slowly mobilizing support and building infrastructure in cholera endemic regions. On one side of Bengal, in Calcutta, there was the Indian Center for Medical Research and Training (ICMRT); on the other side of Bengal, in Dhaka, there was the Pakistan SEATO Cholera Research Laboratory (hereinafter the Laboratory).

In late 60s, when the political antagonism between West and then East Pakistan ripened, continual strikes, road blockades, and rallies were disrupting the routine work of the CRL. At that time, the Laboratory was involved in two main research activities; one was to conduct a longitudinal cholera vaccine trial in the Matlab field hospital and the other was to study the loss of electrolytes in cholera patients.[16]

These studies were carried out among 40,000 children of Matlab. Local women were trained as community health workers to keep track of children in the cohort; national scientists and medical practitioners supervised field level activities, which included collecting blood samples and rectal swabs. A team of foreign scientists composed of an epidemiologist, a clinician, and a bacteriologist, was also in the field, with Robert Allan Philips, a retired US Navy medical officer, in charge. They were studying the balance of output and intake of bodily fluid and electrolytes among those cholera patients who had been admitted to the field hospital and the cholera ward in Dhaka.

---

democracies works programme and rural development in East Pakistan. Bureau of Economic Research, University of Dacca; [distributed by Oxford University Press], Karachi.

[16] In Bangladesh, a foreigner is predominantly a "white male" figure. Uma Kothari (2006), a postcolonial scholar recounting her experience of working as a development expert in Bangladesh described how her expertise as a brown woman was devalued because authority, expertise and knowledge historically have become racially symbolized. See, Kothari, U. "An Agenda for Thinking about 'Race' in Development." *Progress in Development Studies* 6, no. 1(2006): 9-2.

Cholera patients admitted to the cholera hospital in Matlab were dying; or, sometimes, they happened to be miraculously saved. If one group of immunized children showed resistance, another group happened to be easily infected by *Vibrio cholera*. The achievements and results of the laboratory were not consistent. Yet the daily activity in the cholera ward, the rhythm of diesel-operated speedboats carrying medicines, doctors, and foreign scientists from the provincial capital city of Dhaka to Matlab, whetted the national staff's appetite for scientific discovery. Wearing their white laboratory coats, dragging the vaccinator or holding a notebook while walking on muddy roads among foreign scientists, they became committed to the scientific voyage of the laboratory. The war of 1971 broke this scientific routine and rhythm.

The war situation dispersed the children in the vaccine trial cohort. The communication between the field hospital and central laboratory became infrequent; the monthly paycheck could not reach the field staff on time. Some of the Hindu staff of the laboratory left the city, some moved from their homes to the storeroom of the Dhaka laboratory. For the most part, the Pakistani Army took over the streets of the major cities. The Hotel Intercontinental and the US embassy in Dhaka were still safe places for foreign expatriates, and those who had not already left the country took shelter there. Only ambulances and vehicles flying the flag of the Red Cross or the United States of America were safe. W. Henry Mosley, the Head of Epidemiology unit, and Mark Tucker, the Head of Maintenance unit, were among the few foreign nationals who chose to stay back in war-stricken Dhaka and took the risk of traveling outside the capital city (ICDDRB 2003).

In early May 1971, they went to Matlab, carrying the cash with them to avoid the closure of the field hospital. As the Pakistani army continued burning down slums in Dhaka, the number of people fleeing the capital city was increasing every day. Mosley’s household help, Alfred,

lived in one such slum, and he requested Mosley's help. Mosley hid his camera inside the medicine box and went to the slum to distribute food and medicine. A few days later, he went back to the slum, more as a scientist than as relief worker; this time, he vaccinated around 5000 people. He secretly sent photographs of the massacre to Washington, DC and extended his support to the Bangladesh movement.

As the monsoon approached, the resistance of the *Mukti Bahini* (freedom fighters) gained strength; in response, the military operations of the Pakistan army also intensified. They killed whomever they thought was involved in the insurgency. People fled for their lives towards the Indian border. However, the laboratory continued to work in Dhaka and in the Matlab hospital. The political crisis of 1971 disrupted the routine work of the laboratory, but the laboratory never ceased its operations. The refrigerator with medicine, biological samples was always turned on, even when a nationwide blackout prevailed (ICDDRB 2003).

The monsoon rain worsened the situation at different refugee camps in India. Worst of all, the annual cholera epidemic had already started. The chaotic, destitute, and nearly inaccessible camps precluded treating the outbreak of cholera among the refugees with IV fluids. The situation demanded a simple treatment for cholera. Staff members from the ICMRT who were variously involved in relief works at these camps thought of a clinical study conducted in the Laboratory in Dhaka. The Dhaka team had completed a clinical test of an oral rehydration treatment for cholera (Cash et al. 1970; Heyningen and Seal 1983; Ruxin 1994). Two scientists, Dilip Mohalnobish and Thomas Simpson from the ICMRT sat together to discuss the advantages and advantages of administering an as-yet experimental oral solution among the cholera patients of refugees camps. They were convinced, if proved effective this would be the much awaited simple solution for cholera treatment (Macgrane 2003).

Dr. Dilip Mahalnobish, with the help of a few paramedics, set up a medical facility in one of the refugee camps near Bangaon (Mahalnabish et al., 2001). Patients of all ages were lying all over the field on cots, on the floor of a tent, or under the shade of trees (Figure 3). Family members or local volunteers were feeding them oral rehydration fluid. There was no recording system in the relief camp, even though the decrease in the number of case fatalities was recognizably significant. Scientists interested in the area of communicable disease, cholera eradication projects, and vaccine research visited the Bongaon setup, and later replicated the experiment with oral rehydration saline in Africa and the Philippines. An experiment conducted with humanitarian urgency in a chaotic refugee camp later came to be considered one of the foundational research moments in the development of Oral Rehydration Therapy (ORT).[17]

While the medical team met with immediate success and managed to decrease cholera deaths in the camps, some aid workers were frustrated at aid's not being available on the other side of the border because international aid agencies were committed to respecting Pakistan's territorial sovereignty (Schendel, 2009). The continued political crises and mass starvation in Biafra (a South-Eastern region of Nigeria before the Biafran war) further contributed to this moral concern of international relief workers. Frustrated at these norms of international aid, a new humanitarian sentiment began to emerge to the effect that science and medicine should know no borders (Wheeler, 2002). [18] The idea of *Medecins Sans Frontieres* (MSF) also

[17] During the war of independence (1971), rural people of East Pakistan took shelter in the refugee camps in West Bengal (India) to escape from the atrocities of the Pakistani army. The situation in the refugee camps was grim—people were afflicted by starvation, disease, and trauma—but that hardly distinguished them from other refugee camps. And yet, the global public health community fondly remembers these camps as a productive site. Scientists from the Laboratory had set up a temporary medical facility to administer an experimental oral rehydration therapy (ORT) among the cholera victims, and this marked the camp site as different.

[18] Anthropological work interested in the question of humanitarianism and the state of exception repeatedly mentioned the war of independence of Bangladesh and the consequent refugee crisis as key moment in the formation of humanitarian mode of global governance. See Fassin, D. and M. Pandolfi, eds. (2010). *Contemporary states of emergency: the politics of military and humanitarian interventions*. New York: MIT Press.

germinated from this frustration of the doctors, nurses and other aid workers (Redfield 2013). On December 16, 1971 the independence of Bangladesh was declared; the same month saw the birth of MSF. The refugees, the suffering subjects of the camps, thereby became witnesses to a historical moment which saw not only the discovery of a miraculously simple medical cure, ORT, but also the birth of a nation state and the emergence of a national commitment to international science in a medical humanitarian vein. The story I want to tell and the questions I seek to answer in this dissertation were born and grew out of this conjoined historical moment. In this dissertation, drawing from my longitudinal ethnographic work, I follow the ways these mutually constitutive processes have evolved into a regime of saving lives in contemporary Bangladesh.

I now take a brief detour to tell another interwoven history. I look back into the history, practice and ethics of anthropology in Bangladesh – a history shaped by constant ideological tension between the practice of development anthropology of ICDDBR (Aziz 1979; Alam 1993)[19] and postcolonial anthropology (Ahmed and Chowdhury 1998; Ahmed 2001). The main point of contention was around the question of producing a local Bangladeshi other and reducing the question of larger social inequality into a problem of health. This debate is still palpable in Bangladesh. I take this rather abrupt detour to talk about this debate not only to mark the part ICDRRB played in anthropological knowledge production in/about Bangladesh, but also the way these debates and negotiations shaped my research curiosities around the history and politics of

[19] In post-independence Bangladesh, the rise of international aid dependent development organizations created a need for particular kind of anthropological knowledge production. With the United Nations declaration of "Decade for Women (1976-1985)" and the "International Drinking and Water Supply and Sanitation Decade" much of aid support were on cholera prevention/safe water campaign and women empower projects in Bangladesh. These projects were designed with the assumption that local cultural values are barriers to development. To understand the local belief system, the expertise of the development anthropologist considered valuable. In this context, a global flow of anthropologist as development expert began and marked the early moment of development anthropology in Bangladesh. The practice of ICDDRB is embedded in this larger history of anthropology and development in Bangladesh.

cholera research in Bangladesh. I now turn to the story of my journey as an anthropologist with this dissertation project.

Doing Longitudinal Ethnography

It was 1998. Academic anthropology was still in its first decade in Bangladesh. Then, the department of anthropology at Jahangirnagar University was the first and only department in the country. As a college student, I did not know much about the discipline when I joined the program. The only faculty member with a formal training and degree in anthropology was also a consultant anthropologist with the Center. He would often recruit his students as research assistants. These students would talk boastfully about their adventurous journey to Matlab and lucrative honorarium. This is how I first heard of the Center as a prospective place of career building for anthropology graduates.

At that juncture, pedagogical practices in the department were deeply divided between post-colonial and modernist philosophies. Local anthropological narratives were largely produced by the Center that depicted different local communities based on their ethnic, gender, and class differences as subjects of international development intervention. In effect, American anthropologists affiliated with it as development consultants did the work of introducing people in poverty as the local anthropological other in Bangladesh (Leonardo 1998). The tension between the practices of development anthropology and the postcolonial critique of it become self-evident when a group of faculties and students (who were also recruited research assistants) took a position against the anthropological practices of the Center. I become aware of the ideological work of the Center.

In 2000, a seminar was organized in the department, "Cholera research or a new form of colonialism?" The critique of the Center presented at the seminar was largely focused on

perceived unethical treatment of research subjects in Matlab. At the end of the seminar, an informal faculty-student collective was formed with the vision of reclaiming anthropology from the development industry including the Center, BRAC, and other major development organizations. The collective died a premature death. However, it was the moment when I, as a member of this collective, began my ethnographic engagement with the research practices of the Center and the history of cholera research in Bangladesh. The appeal of a decolonizing initiative was more tangible at the moment than now as I write on the same in this dissertation (Chapter 2 The Political Economy of Life Saving Research).

This engagement took the shape of formal academic research when I started an archival ethnographic project titled, "Local Bacteria, Transnational Laboratory: The Politics of Cholera Research in Bangladesh (2007)." In this historical ethnography, I explored the ways in which a situation of endemic cholera, the emergence of humanitarian science (the Center), and the marginality of the nation-state are mutually constitutive in Bangladesh. Drawing theoretical insights from science studies and postcolonial studies, I reconstructed the interwoven histories to show that violence and vivisection are also endemic to this co-construction process. Looking particularly at the promotion of bacteriologically safe water and its consequences, I suggested that the structural condition under which a cholera epidemic became a manageable health problem itself inflicted an unmanageable health problem: the arsenic disaster.[20]

[20] Immediately after the independence of Bangladesh, international development organizations like UNICEF, WHO and UN set the goal of providing access to safe water for Bangladesh and introduced a new water technology – the tube well. Twenty-five years later, Bangladesh achieved nearly one hundred percent access to safe water. Nevertheless, these twenty-five years of access to safe water turned out to mean decades of arsenic poisoning to the rural population. Excessive and unplanned installation of tube wells increased the natural concentration of arsenic in ground water and drinking this contaminated water people had started manifesting the symptoms of arsenicosis (a form of skin cancer). See, Smith, H. A., Lingas, E. O., Rahman, M. (2000). Contamination of Drinking-Water by Arsenic in Bangladesh: A Public Health Emergence. *Bulletin of World Health Organization*, 78 (9) 1093-1103.

I write this brief history of this dissertation itself to underline my long-standing ethnographic engagement with the Center. The questions I have raised and the analysis I present in this dissertation stem from this cumulative understanding and experience (Howell 2012). To describe long-term ethnographic engagement, anthropologists often talk about ethnographic return (Burton el al. 2015; O'Reilly 2012), longitudinal ethnography (Adler 1993; Kilbride 2013), and multitemporal ethnography (Talle 2012). In light of this broader discussion among the anthropologists who are variously tied to their ethnographic site for a longer period than expected, I have described my engagement as longitudinal, multitemporal. This longer story of reading, and writing about and against the knowledge production of the Center shaped my own intellectual becoming, as well as the becoming of this dissertation (Barad 2007).[21]

Describing an Emerging Political Moment – the Post 9/11 Bangladesh

In local public memory, it was the launch disaster of 2004 that finally compelled the government to heed their longstanding demand for a road transportation system from Dhaka. On February 19, 2005, M.V Moharaj, a Matlab-bound launch from Dhaka, capsized near the intersection of the Meghna and Shitolokha rivers with approximately 250 people on board.[22] In the face of this tragedy, the local administration quickly approved a road development project to make access to Matlab possible by land. A snake-like road was built expanding the dividers in the paddy fields

[21] My approach to ethnography is deeply influenced by Karen Barad's discussion on the relational practices of becoming and making. See Barad, K. M. (2007). *Meeting the universe halfway: quantum physics and the entanglement of matter and meaning*. Durham: Duke University Press.

[22] Most victims of this capsized launch were from greater Matlab, including eminent citizens of the area. A school headmaster was killed along with five other members of his family. In Matlab, public prayer is arranged on the anniversary of the tragedy every year. The organizers of this commemorative event bring out posters with photographs of victims and arrange a *milad mehfil* (prayer meet) at local high school premise. Some years, they have also arranged *jiyafot* (a meal for poor people in the area). For a journalistic analysis of launch capsizes in Bangladesh see, Hasan, R. (2005 July 13). Launch Tragedies: Shipping authorities, owners find them 'normal' affair. *The Daily Star*. Retrieved from *http://archive.thedailystar.net/2005/07/13/d5071301044.htm*

that connected Daudakandi with Matlab. In 2008, when I took the Matlab Express from Dhaka, the road was already in desperate need of repair. During the ride, most men on board spent their time verbally abusing the underage bus driver for his bad driving or swearing at a distance about the greedy Local Government Engineering Department (LGED) officials for their negligence.

The bus dropped me in front of the local telecommunication office. From there, it is another twenty minutes' walk or ten minutes by *tomtom* (battery operated three-wheelers) to the Center in Matlab. In that first trip, it was strikingly clear to me that various Islamic forces are differently at work in the management of local gender and class dynamics; this was repeatedly confirmed during my longer stay in Matlab. On my walk to the Center, I was stopped several times asking if I need a *tomtom* to the town. In a polite way of preventing a woman from walking in public space *beparda* (improper, without head cover), I was advised to wait at a tea-stall for the next *tomtom* or *bhotbhoti* (a farm vehicle is often used to carry passengers in Matlab). The people who urged me to do so did not want to interrupt my work, because they commend research activities in Matlab. However, it would be improper, indelicate for a woman to walk during the masculine hours of the day. As a further technique of intimidation, in my later visits, I was mugged and then dropped in the middle of a road, so I had to walk miles to reach my destination. These observations carry the risk of reproducing the stereotypical narrative of experience under "orientalist patriarchy" or orientalizing local patriarchy (Mahmood 2004; Hasan 2005, Abu-Lughod 2013).[23] I do not present this snippet to talk about my gendered

[23] Feminist scholars have written at length about the Western project of saving Third-World women. In her canonical essay "Under Western Eye," Chandra Talpade Mohanty (1986) has talked about the homogenizing tendencies and epistemic violence of such projects. In her most recent work, *Do Muslim Women need Saving?* Laila Abu Loughod (2013) wrote about how contemporary military invasions and humanitarian interventions are authorized by depicting a stereotypically oppressive local patriarchy and Muslim women's subjection under this system. See, Mohanty, C. (2003 [1986]). "Under Western Eyes" Revisited: Feminist Solidarity through Anticapitalist Struggles. *Signs, 28*(2), 499-535; and, Abu-Lughod, L. (2013). *Do Muslim Women Need Saving?* Cambridge, Massachusetts: Harvard University Press.

experience in the field. I bring this issue to the fore as way of reckoning the historical conjuncture in which this dissertation work took place.

In post 9/11 Bangladesh, the polarity between secular-modern and the Islamic forces is revitalized, cultivated, and capitalized by global, national, and local actors. In this political scheme of things, women's public presence becomes palpable yet again. The more intrusive diplomatic presence of the US, with a local FBI office in Dhaka to fight terrorism in Bangladesh, found justification in the name of salvaging women's empowerment in the country (Ahmad 2012). Such rhetoric of waging war to emancipate women is one of the defining characters of the time I have described in this dissertation as the time of saving lives (Eisenstein 2009, Ticktin 2011, Abu-Lughod 2013). However, neither the scope of this research permits nor do I have the expertise to talk about the particular development of these Islamic political forces. With some certainty, I say that in the micro-context of Shatnal, the rising religious authority created a scope for proletariat men to reclaim space that was threatened by the symbolic inclusion of women in the formal economy and the presence of foreign men and women in the area. Taking social tensions around women's visibility as a marker of time is still a hegemonic strategy (Mohanty 1984); I admit taking the risk to underscore the Center's intrusion into local gender relations with its universal model of women's empowerment and to describe the social atmosphere in which this research took place (Chapter V Making Expert).

Reckoning with a New History of Cholera in Bangladesh

On my first visit to Matlab (July 2009), a security guard of the Center gave me a tour of the historic “cholera barge” (Figure 4). The rural cholera treatment center of the Laboratory was a barge. From this barge, the national and international scientists provided care for cholera

patients. Considering it as historic site of significant cholera research including the discovery the ORT, the barge is now taken out of water and placed on a pedestal in front of the Center in Matlab. I peeped through the window to see the inside; it was indeed preserved and displayed in such a way as to give the impression that a cholera patient would come any moment. The beds were neatly done and a white coat hung on the wall. The security guard gleefully announced, "A lot of good science happened here."

Figure 4 The Pakistan SEATO Cholera Hospital in Dhaka was supplemented by a rural cholera treatment facility in Matlab. It was housed on a barge that had previously served as a prison boat in East Pakistan. Matlab, 1964.

He asked, "How do you think cholera is conquered in Bangladesh? How do you think this Center became the name of world-famous science? We work by the order of US or other foreign missions. Neither the Chief of Marshall of Bangladesh Army, nor the elected Prime Minister of Bangladesh has any say in our organizational policy. We are immune to the nonsensical politics of our leaders." According to him, a crude disregard for the national government was a necessary precondition to conquer cholera in Bangladesh. Aside from the

negative dialectics between the institutional autonomy of the Center and the sovereign existence of Bangladesh (Buck-Morss 1977), what was perplexing for me at that early stage of this research was his forceful declaration of victory against cholera. Over the months since, I have slowly come to recognize a new phase in the long history of cholera.

In his historiographical account of cholera as a disease with global ramifications. Christopher Hamlin (2009) aptly problematize the co-constitutive relationship between science and cholera saying,

> "Histories of cholera exist in a reciprocal relationship with science…Knowledge of cholera is changing quickly; new findings invite a new history, which will feed back on how we think about cholera in the present (p.267)."

The scientific advancement in the understanding of fluid loss in a cholera patient and the discovery of a simple rehydrating solution slowly changed public perception of the disease. In Bangladesh, a massive nationwide campaign to disseminate this new knowledge chased away the fear of death from cholera and diarrhea. The discussion and analysis presented in this dissertation substantiated Hamlin's hypothesis, additionally developing a particular account of cholera in Bangladesh. I offer a new history of cholera, charting its descent into the realm of the ordinary in Bangladesh.

I recognize the discovery of ORT as a departure, a break from earlier history of cholera through the local registrar of frustration at the existing public health services and its fetishized attention on cholera prevention. Accordingly, I have asked, in the *time after the discovery of ORT*, how stories of cholera continue to communicate fear despite certain, and decisive knowledge and cure for cholera. In what tangible and intangible shape and form do risk discourses emerge when fear of cholera/diarrhea is not as palpable as it was in 1965? How do

people in poverty engage with public health discourses of cholera prevention to evoke frustration?

In Matlab, this interplay between fear and frustration constitutive of contemporary discourses of cholera/diarrhea also marks a departure in time – a departure that is captured in the words of a medical officer:

> An old man was brought with chest pain. I have referred him to a district hospital. Do you need an MBBS doctor to write referral or administer intravenous saline? I could not even arrange him oxygen support or an ambulance. Had he died on the way, it would have been murder. Doesn't he deserve to die a natural death? Is it really necessary to invest more on cholera/diarrhea prevention when everyday health care needs are changing? Cholera is a problem, but not for the reasons we are told it is.

His discussion is alluding to an epidemiological shift and rising number of deaths from chronic diseases in Bangladesh. The epidemiological record seems slow in marking this shift; however, in local registers through discussion of different forms of death this change was already noted, particularly through the definition of "preventable death." Cholera/diarrhea and communicable diseases at large constitute the core of preventable death, while treatments for cardiac arrest, kidney disease or old age health complication remain outside the responsibility of the state. In this dissertation, I examine the *time of saving lives from preventable deaths* through the register of different forms of death.

Relocating the Primary Field Site

While I have long had a research interest in the Center as a scientific infrastructure of knowledge production in Bangladesh, the research for this dissertation took place during the period of 2011-2015. I returned to Dhaka with the ambition of conducting part of the ethnographic work at the Center in Matlab. I wanted to work with the community health workers who are responsible for conducting routine epidemiological surveillance. Keeping a more classic model of laboratory

studies (Latour and Woolgar 1986) in my mind, I was thinking of following each step in the process of maintaining this globally-renowned surveillance system.

From my pre-dissertation fieldwork (2008, 2009), I already knew the steps and different levels of staff involved in the data collection and the cleaning and evaluation of collected data. A Senior Health Assistant (SHA) and a Health Assistant (HA) would visit the household followed bi-weekly household visits by Community Health Workers (CHW). Then, scientific officers would analyze the processed data and transcribe it onto a map of the surveillance area. This map can be used in conjunction with the hospital data to identify where each cholera patient from the past years came from, because each patient record includes a village code and a household code.[24] I was interested in the everyday work of the CHWs, SHAs, and HAs to understand this codification system and the hierarchical distribution of scientific labor, among other things. It is through their labor and movement between different sites that the claim of bringing down the walls of the laboratory (Sack cited in Watts 2003) and taking science to the bedsides of poor cholera victims become possible (Rhode and Northrup 1976). The hierarchical distribution of scientific labor between health workers and their intimate care for the patient and contact with biological substances (feces, blood sample of cholera/diarrhea patient) made this duality between laboratory and clinical spaces possible: a duality that is foundational in distinguishing the scientific practices of the Center from "mainstream science" as partisan, pro-poor, and humanitarian. In effect, the Center practices objective science with a subjective mission. I was most interested in understanding this dialectical mission involving cholera. With this research

[24] An interview with a Bangladeshi anthropologist who had worked as research officer in Matlab for a brief period illustrated this coding system to me. When talking about his research assignment, he described the elaborate and minute codification of households and people subjected to this epidemiological surveillance system. He conducted 11 in-depth qualitative interviews with men on their sexual behavior. He was flabbergasted at the codification of people living inside this system. In Matlab, his supervisor took out 11 cards with the names and code numbers of household and village.

interest and objective, I arrived in Matlab *sadar* (township) where the field hospital and laboratory is located.

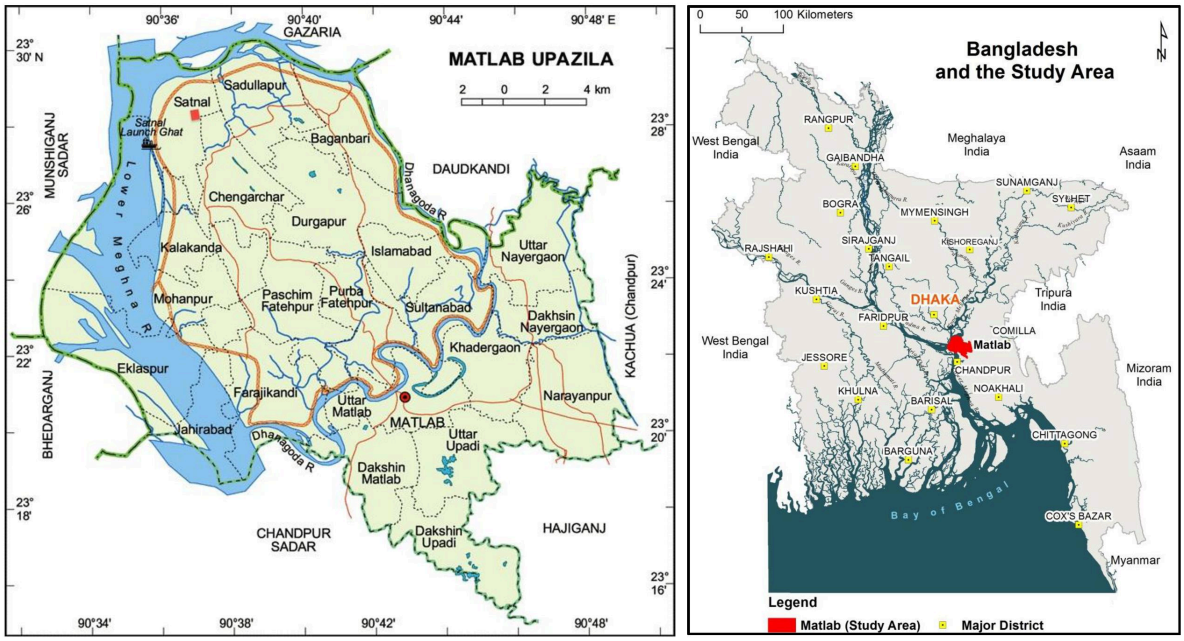

Figure 5 Map of Matlab and Shatnal[25]

I have had prior contacts with the Center. I have been a member of its library and archival services since 2009. I have attended the Center's annual scientific conferences and training workshops on cholera epidemics in Dhaka. During this initial contact, I have always been warmly welcomed and my particular research requests were immediately addressed. In 2012, I wanted to attend their acute cholera and diarrhea management workshop. It was originally designed for physicians only. The workshop coordinator bent the rules of participation and allowed me to participate in it. However, I was also aware of the Center's protective measures to control access to its knowledge. When I approached them with a proposal to work with the Center in Matlab, a staff from the Center explained to me the organizational policy and process

[25] This map of undivided Matlab *Upajila* (sub-district) is collected from the Chandpur District Office.

to obtain student researcher status with the Center. Two crucial requirements in the process compelled me to reconsider my original research plan. Firstly, I would need to include a senior research staff from the Center who would supervise my research work with the Center. Secondly, upon attaining an official status, I would become subject to their institutional Law, Code of Ethics, and Professional Conduct (hereinafter referred as the Code) that included a recently amended clause titled "whistleblower policy." Until this amendment, there was no provision for staff to record their concern about any ethical violation in the scientific practices of the Center. The new amendment creates a mechanism to file complaints internally, and also includes a non-disclosure agreement.

With its military history and profound influence in governing the public health policies in Bangladesh, the Center has always been keenly aware of and vigilant about any negative representation that could invite public backlash and controversy. The most recent amendment in their Code and the inclusion of a whistleblower clause is direct result of such controversy.[26] In my earlier archival ethnographic work (2007), I have defined this dynamic in their organizational practice as structural deception. Neither this ethical perplexity nor the guardedness of the Center is a historically new phenomenon in anthropology.[27] Historically, from Laura Nader (1972) to

[26] In early 2011, there was disquiet among the scientists who informally campaigned against the Executive Director's decision and use of government funds. They distributed handbills and circulated email messages with their grievances internally since staff must face unwritten consequences for making public allegations against the practices of the Center. Eventually, the Executive Director in question was asked to leave, having lost the confidence of the Board of Trustees of the Center. This led to a review of the existing code and amendment to include a clause on whistleblowers. See, ICDDRB Executive Director Sacked. (2012, June 18). *bdnews24.com*. Retrieved from *http://bdnews24.com/health/2012/06/18/icddrb-executive-director-sacked.*

[27] Since its inception, the governing body of the Laboratory has always been locally ambiguous. The undefined power structure of East Pakistan partly contributed to this lack of accountability; its scientific activities were mostly documented in the form of scientific protocols or annual reports submitted to US funding bodies or research institutes like National Institute of Health (NIH) or Johns Hopkins University. Afterwards, the Laboratory's internationalization formed a board of trustees comprised of experts from different donor and developing states. The presence of the government in the administrative mechanism hardly made the Center accountable to the Government of Bangladesh. In essence, the scientific goal, objectives, and research results are always shadowy to the public. The lack of local accountability, coupled with publicly inaccessible expert scientific language, conspires to make the

Karen Ho (2009), anthropologists interested in studying the technologies of power and biographies of hegemony have illuminated this methodological question of access.[28] Anthropologists and researchers in social science have termed the use of institutional research ethics a technology of control (Haise and Honey 2007) or bureaucracies of mass deception (Bosk and De Veries 2004; Fassin 2006).

Local researchers and journalists who had previously worked on the Center have repeatedly alerted me to such possibilities. On all counts, it was an anticipated situation. In the end, what prompted me to relocate my primary field site from Matlab town to Shatnal was a third condition to attain a status with the Center. The condition implies that the Center would have access to the writing process. From the perspective of the Center, this condition is perceived as way of rewarding the student researcher with the opportunity to publish with renowned scientists of the Center. This is a common practice in science writing (Petryna 2006). However, the prospect of writing under any form of surveillance felt oppressive. I decided to shift the primary

Center a foreign-unknown locale within the sovereign territory of Bangladesh. Therefore, my argument is that inaccessibility is structurally determined; the deception that prevails is historically configured.

[28] In recent times, Torin Monahan (2011, 2015), David Price (2007) and Sherry Ortner (2010) have illustrated this moment in their ethnographic work with secretive and guarded organizations or elite communities. Drawing from their research projects on Department of Homeland Security (DHS) "fusion centers," intelligent transportation centers, hospitals, and companies conducting pharmaceutical trial in the US, Fisher and Monahan (2015) write about this complex question of access from a very pragmatic perspective and provided researchers in similar research situation with a guide to obtain access. They argued that gaining access is specially challenging when representatives of the prospective research sites see their work as being "sensitive" and would shield any public accountability. Therefore, it is vital to effectively study secretive or guarded organizations and fill out the empirical record with innovative ethnographic work. To that end, they draw from their own collective research experience and the scholarship of the others to present nine strategies that they found to be especially effective for securing access to secretive organizations. Strictly focusing on the institutional management of research ethics Jack Katz (2006) attempted similar guideline, an ethical escape route for underground ethnography. See, Fisher, J. A and Monahan, T. (2015). Strategies for Obtaining Access to Secretive or Guarded Organizations. *Journal of Contemporary Ethnography*, 44 (6), 709-736; and, Katz, J. (2006). Ethical Escape Routes for Underground Ethnographers. *American Ethnologist,33*(4), 499-506.

site of my ethnographic work to Shatnal, a Union Parishad 25 kilometers north east of Matlab *Sadar*.[29]

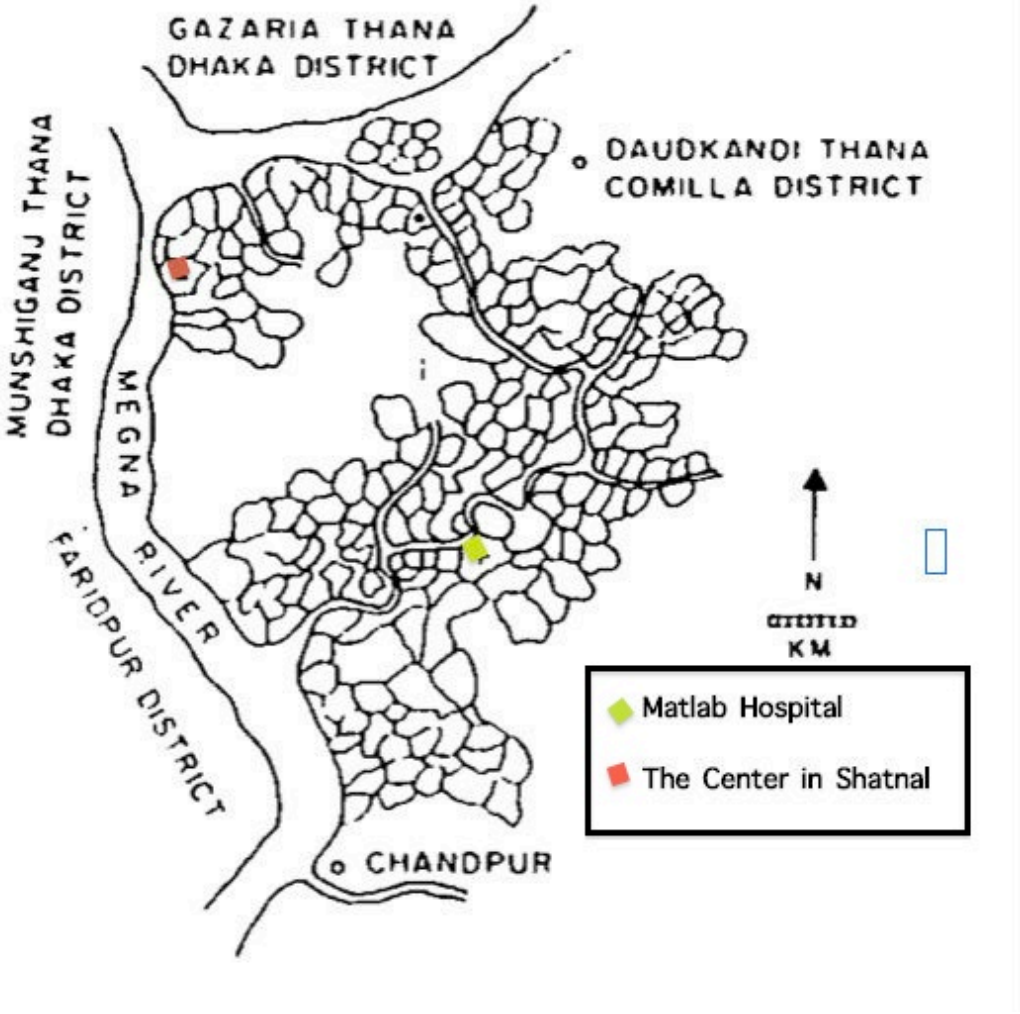

Figure 6 Hand drawn map showing Matlab Hospital and the Center in Shatnal (Baqi et al. 1984)[30]

[29] Union Parishad is the smallest rural administrative and local government unit in Bangladesh. Each union is made up of nine wards. Conventionally, a village is a ward. A Union Parishad consists of a Chairman and twelve members including three women members. They are all elected members and primarily responsible for agricultural, industrial, and community development in their constituency.

[30] The original hand drawn map is from a research report of ICDDRB. I have worked on it to fit the purpose of my discussion. A version of the research report is published as a journal article which includes the original map. See, Baqui et al. (1984). Figure 1: Matlab field projects are of ICDDRB [Map] Scale not given. In Baqui et al. Community-operated treatment centres prevented many cholera deaths. *Journal of Diarrhoeal Diseases Research, 2*(2), 92-98.

In 1965, a cholera epidemic struck Shatnal and left at least 35 people dead. The Center was providing treatment for cholera victims from their barge docked in Matlab Sadar (Figure 6). However, there was no easy transportation system from Matlab to Shatnal. Local landowning elites offered land to set up a cholera clinic in Matlab. The Center's march to conquer cholera in Shatnal was different than in Matlab. In Shatnal, their presence was less intrusive, minimal and mediated by community leaders. From 1965 to 1977, the Center in Shatnal was under the direct management of ICDDRB. During these years, it was also part of the epidemiological surveillance system. In 1978, it decided to transfer the ownership to a community-managed board, and discontinued the routine epidemiological surveillance in the area. However, ICDDRB continued to bear the cost of treating diarrhea/cholera patients and the salary of the CHWs who maintain the cholera/diarrhea-specific surveillance system. This distant and flexible connection with ICDDRB and the Center in Shatnal provided me an opportunity to cultivate relationships with the Center, place, and people without subjecting myself to the institutional ethical gaze of ICDDRB.

Relocating my primary ethnographic site from Matlab Sadar to Shatnal did not significantly alter the larger argument I pursued in this dissertation. If anything, it made the disparities in the public health investment more evident to me. On my first visit to Shatnal, I witnessed the death of a young woman from domestic violence and the system of bureaucratic indifference towards her life and death compelled me to think about the bounded definition of preventable cholera death (Chapter 3 Setting up Clinic). In that first encounter with death in the field, I was still carrying a notion of death as an unjust end of the life of an individual. I was breathlessly working with local journalists to bring the perpetrators of her death to justice. The

months that followed this encounter interrupted my linear understanding of life and death. Enduring grief, sharing the loss with the community, and living in constant proximity to death in Shatnal, I have not only come to recognize life and death as a mutually constitutive event (Das and Han 2016), but also have learned to see the public health system as an infrastructure for asymmetrically distributing value and worth in life (Chapter 4 Calculating Risk).

Organizing Everyday Life in the Field

Even though I shifted my site from Matlab to Shatnal, I continued to live in Matlab for the first eight months in the field. Every morning, I would take a *bhotbhoti* or passenger motorbike to Sataki Bazaar. Therefore, I remained socially tied to the Matlab *sadar* and cultivated a social life through attending the anniversary of a major launch capsize or the 40th anniversary of the independence of Bangladesh. In the process, I developed an understanding of the social history of greater Matlab and the role of the Center in this history.

In Shatnal, the Center is located at Sataki village. According to the most recent government census, the total population of the village is 1,745. In 1965, when the Center first appeared in Shatnal, it was a predominantly Hindu community. That is not the case anymore. The rising communal tension and looming insecurity forced the Hindu community to migrate across the Meghna river. Most men in the village are landless daily laborers; women are involved in household farming or homemakers, with the exception of family planning workers, community health workers, and microcredit repayment collectors. There are two government schools and a mosque adjacent to the Center. There is also a Madrasha for children. The Shatnal Government Health Complex is situated on the border of Sataki and Kalipur village.

My first two months in Shatnal were devoted to recording local grievances. At the bazaar, male shopkeepers would often complain about the lack of industrial development in the

area: “There is no work for us.” Women often complained about the cooking gas supply: “Before the national election, every candidate promised to bring gas to the village. We are only two hours from Narayanganj port - how can we still not have gas! *boka choda* MPs (Dumb fucker, parliament members).” Family planning workers would talk about their lack of access to larger reproductive health care systems. The information officer of the Shatnal Union Parishad would talk about the sham that the information center is. Local elite also have grievances: “There are no roads. How do you expect us to live here? In monsoon, we have to walk on ankle-deep mud. Where is the government?”

There are six staff members at the Center, including four CHWs and two cleaners. Their main grievance is that in the name of community ownership ICDDRB have denied them the privileges that other CHWs enjoy in Nayer Gaon or Kalipur Centers. “They have gratuity fund and pension benefits. We are left stranded with the fixed unchanging salary and rotting future. We don't lack in commitment to our patients or scientific research, we have the same educational background. Yet, we are abandoned.”

During this period, I also spent time talking to middle school children and listening to their jokes about their teachers. They would mock their mathematics teacher, how he sleeps during class. They loved their history teacher because he never showed up in class. I have also heard jokes about how people from the city love to talk about shit and cholera. In the process, a local landscape of inequality and state indifference became apparent to me. I shared the larger concerns that the state and NGO interventions are fragmentary, disjointed, and do not address the structural inequalities (Farmer 2003; Das 2015). Through shared language of grievance and sarcasm against the system of indifference, an affinity as bearer of similar grievance was born. I would often find myself writing letters to the District Police Commissioner or District Magistrate

with a local journalist and information officer at the Union Parishad, asking to redress the everyday negligence in the area or about something more specific. My affinity with the community in Shatnal was not without social tensions. I was warmly invited to *poush mela* (autumn festival), but also told what to wear to the event. With this story, I do not claim an insider position in Shatnal. I remained different and an outsider in the everyday life of Shatnal. However, there is an affinity (Graeber 2004; Hollan and Jason 2011; Fortun 2001).[31]

In Shatnal, my average day was divided into two shifts. In the morning, I would visit the outpost of the Center. Normally, diarrhea patients would visit the Center in the morning. Very rarely were there patients in the afternoon, evening. In the afternoon, I would assist Dijen Sen, a CHW from the Center at his pharmacies. He has two pharmacies and practices there on alternate days. This routine ethnographic work clued me into the institutional and everyday experience of disease and illness in Shatnal and, more importantly, the place of cholera/diarrhea in this everyday life.

This everyday routine was interrupted when I returned to Dhaka to attend different public events (co)organized by/on ICDDRB including press conferences, a roundtable discussion with national dailies, scientific conferences, and training workshops on cholera and other infectious diseases. In the process, I attended a press conference organized by the Center to launch a special issue on Bangladesh by *The Lancet* (2013). For three consecutive years from 2011-2014, I

[31] Affinity, empathy are much debated territories of ethical negotiation for anthropologists. In his *Fragments of an Anarchist Anthropology (2004),* David Graeber discussed the politics of affinity in anarchist community formation in contemporary North America. In their edited collection, *The Anthropology of Empathy (2011),* Jason Throp and Douglas Holla asked what role empathy plays in the ethnographer's sociality. I draw from their insights; however, in my use of the term affinity, I try to convey the complex way an affinity persists despite deeply rooted social divides stemming from classed and gendered history. See, Graeber, D. (2004). *Fragments of an Anarchist Anthropology*. Chicago: Prickly Paradigm Press; distributed by University of Chicago Press; and, Hollan, D. W., & Throop, C. J. (2011). *The Anthropology of Empathy: Experiencing the Lives of Others in Pacific Societies*. New York: Berghahn Books.

attended the Global Handwashing Day (GHWD) celebration. The ICDDRB is one of the main sponsors of this event. Participation in these events provided me with opportunities to conduct interviews with scientists from the Center and exposed me to the larger public health agenda-setting practices of the Center. I met with development experts who had morally opposed the ideological position of the Center; however, they had visited Matlab with other development initiatives. Participating in these events, I would return to Shatnal with more specific sets of questions for community health workers, LGED personnel, or the local historian.

The everyday in Shatnal or events in Dhaka would point me towards different archives. During this period, I worked at the National Archive of Bangladesh, the National Archive of India – New Delhi, and the Robert Koch Institute Archive, Berlin. In addition to these archives, I have extensively used the digital archive of the Center. To understand the internationalization of the Center, I have accessed the personal archive of eminent scientist A K Mansur. Having access to his personal archive, and organizational documents from late 70s, I was able to understand the role of health diplomacy in Cold War political economy in late 70s. Therefore, my ethnographic work in the field was organized around distinctly different sites of storytelling – everyday routines, official events, and archival records.

In what follows, the dissertation is divided into three parts. In the first, drawing largely from my archival work I have illustrated the political economic histories of cholera and other lifesaving research in Bangladesh (Part I Entangled History). In part two, my analysis focus on the everyday of the cholera/diarrhea prevention and treatment program in Shatnal (Part II The Regime of Saving of Lives). In the concluding part, my analysis revolves around two events: an annual scientific conference organized by the ICDDRB and the celebration of the Global Handwashing Day (GHWD) (Part III The Regime of Global Biopolitical Solidarity).

All names in this dissertation are pseudonyms with the exception of public figures.

PART I: ENTANGLED HISTORIES OF CHOLERA

In 1960, when the Center was established in the-then East Pakistan, scientists were coming to the conclusion that *vibrio cholerae* — by then well-recognized as the biological pathogen associated with cholera — no longer played any part in the agony of the disease once the symptoms of diarrhea had been initiated. Rather, it was the rapid loss of electrolytes that caused death and an effective rehydration procedure could decrease the case fatalities. Scientific understanding of the glucose, sodium, and water transport in body fluids across the intestine, however, remained murky. It was still a disease taking lives and destroying communities. As cultural historian Chrisopher Hemlin (2009) describes:

> It took hold, drawing body's heat, twisting muscles into spasms and cramps, producing insatiable thirst but taking away voice. It liquefied a body as fluids streamed uncontrollably and insensibly from both ends. It quickly wrung the water from the body, leaving a shriveled form and thickened blood. All this in few a hours. Cholera bypassed both the cathartic crisis of fever and the advances and declines of consumption; it was not a disease that a person lived with. Cholera was experienced not simply by its victims but by their communities, both immediate and broader, and not just during epidemics but before and after them. It was an ordeal of anticipation, for much of cholera's story is a story of fear (p.2).

Hemlin's description bore striking similarity to Robert Alan Philips's vivid depiction of his cholera patients (Ruxin 1994). He was the director of the Center from 1963-1965. From his research in the Philippines, it was evident that the loss of electrolytes resulting in severe dehydration was causing death in diarrhea cases. He arrived in Dhaka to test his sodium-pump hypothesis that the cholera patient's intestinal sodium pump gets poisoned, implying that sodium,

instead of getting absorbed in blood, comes out with feces.[32] He believed that a high concentration of the oral solution would unpoison the pump. In Dhaka, Captain Philips was commissioned to continue his rehydration study. Since his oral solutions were three times isotonic in concentration and intravenous fluid was co-administered, fluid overload occurred and led to congestive heart failure in some of the victims admitted to the hospital during this study. This study left clues for improving the solution, but the death of his patients left him distraught. He decided to not pursue the oral rehydration therapy and left Dhaka without completing his term with the Center. Others in his research team continued to improve the oral rehydration solution. In 1971, the efficacy of this treatment was finally proved at the refugee camp. Now, ORS is regarded as one of the most important scientific victories of the twentieth century.[33]

In 1994, the Center in collaboration with WHO celebrated twenty-five years of saving lives with the ORS.[34] In 1996, on the eve of the Silver Jubilee celebration of Bangladesh, the government declared a near-hundred-percent coverage of safe water through the installation of hand-pumps. The success of the public health campaign followed by a scientific discovery radically decreased the numbers of deaths from diarrhea. From the perspective of the Center, this celebration does not mark a transition into a new phase in the history of cholera. Critiques of the Center often read this measured and selective celebration as a necessary condition for its

[32] In September 1961, Captain Robert Alan Philip was still part of the Naval Medical Research Unit (NAMRU), a military medical research body in the US. Considering his interest in loss of bodily fluid in cholera patients, he was sent to the Philippines when a cholera epidemic struck. There, he began his experimentation in rehydration study. For two patients, he prescribed a high concentration of sugar and sodium orally and the effect of it on the patients was significant. His work here made him formulate the sodium pump hypothesis. See Philips, R. A. (1964). Water and Electrolytes Losses in Cholera. Federation Proceedings. 23: 705-12.

[33] The *Lancet* (1978) dubbed the development of the ORS solution as "potentially the most important medical advance" of the 20th century by. See, *The lancet (British edition): Water with sugar and salt* (1978). *2*(8084), 300-301.

[34] See, World Health Organization and International Center for Diarrheal Disease Research Bangladesh. (1994). *Twenty-five years of ORS: Joint ICDDRB/WHO consultative meeting on ORS formulation*. Retrieved from http://apps.who.int/iris/handle/10665/61332.

continued existence in Bangladesh. According to this reading, this unchanging, ahistorical story about cholera is the "financial life-line" of the Center (Chowdhury, 2012). Economic interest alone cannot explain the Center's dilemmas and selective celebration of new knowledge; however, there is an economics of science that played a crucial part of in the story (Chapter 1 A False Cholera Alarm). The recent Staff Welfare Association of ICDDRB's (SWA) uprising against the inequality between national and scientists of Western origin also supports this observation (Chapter 2 The Political Economy of Life Saving Research). In this part of the dissertation, I trace the political economic histories of cholera after the discovery of ORT and the birth of Bangladesh and banality of discourses of decolonization in neoliberal times.

CHAPTER I: A FALSE CHOLERA ALARM

Making History

Figure 7 On May 14, 2011, the *New Age* published this cartoon with a lead story entitled "Minister under attack over cholera comment."

"Cholera is widespread in Bangladesh. We see cholera peaks twice a year – before and after monsoon," commented A.H. M Ruhul Huq, the Health Minister of Bangladesh at the 128th executive board meeting of World Health Organization (WHO) meeting in Geneva, Switzerland. He was presenting a draft proposal on a "Mechanism for Cholera Control and Prevention." The

proposed mechanism emphasized the continued support of cholera surveillance programs and promotion of an oral vaccine to immunize against cholera. His proposal was accepted by the executive board and discussed in the next World Health assembly.[35] When he met with the press at the airport in Dhaka, he was elated and proud of his accomplishment at the WHO meeting: "This is a milestone for Bangladesh since WHO had for the first time accepted our resolution. Once the issue is discussed in the upcoming world health assembly in May (2011), cholera surveillance will start in the country and the vaccine will start its way to the national vaccination program in Bangladesh. We will be the first country to adopt the cholera vaccine. We will make history again."

The government felt validated and visible in the global political economic landscape. The political party in government, Awami League (AL), took credit for such success in health diplomacy. Indirectly gesturing to the parliamentary opposition, Bangladesh Nationalist Party (BNP), the Minister said, "No other political party in power has ever reached this stage at any international platform." Like most issues in Bangladesh, the endemic cholera and prevalence of diarrhea easily turned into a fracas between the two factional political parties with neoliberal orientations.

During a parliamentary debate, the opposition party members did not ask for the epidemiological justification behind further investment in cholera surveillance systems, as there has been no reported case of cholera since 1997 (Sadiq 2011).[36] Instead, they spent the limited time allocated to them by the speaker of the parliament refuting the Health Minister's claim that

[35] See, World Health Organization. (2011). Executive Board. 128th Session. Retrieved from http://apps.who.int/iris/bitstream/10665/2424/1/B128_REC1-en.pdf

[36] Since 2007, the Directorate General of Health Services (DGHS) publishes an annual health bulletin. The latest Health Bulletin provides a detail statistical account of diarrhea over the last decade. However, it mentions no case of cholera. ICDDRB hospital records also do not show any cholera patients.

this is the first victory of its kind. It was during BNP's term in the government that a historic battle against cholera was won.[37] I am not sure that any particular moment in the history of cholera in Bangladesh could be so definitively seen victorious. What became evident from this parliamentary exchange is that cholera remains a matter of making history even when there is no immediately apparent battle to win. I emphasize this uncertainty about triumphal moments to mark a new juncture in the history – a juncture defined by the tension between epidemiological facts, transnational and national governmental interest, and the lived reality of cholera in contemporary Bangladesh. This tension was reflected in the way national dailies reported the government's declaration as "false cholera alarm."[38]

Undoing Histories

The Health Minister's comment sparked a debate among the public health activists in Bangladesh. To challenge the Minister's statement, organizers of the Health Rights Movement National Committee (HRMNC)[39] called an emergency press conference at the National Press Club in Dhaka. Speakers at the press conference included four radical voices and long-term health rights activists in Bangladesh. Dr. Taher Chowdhury of the National Committee read the three-pages-long written statement. They each took a turn responding to the questions of the

[37] Personal correspondence with the parliament correspondence of a national daily.

[38] See, Govt Raises False Cholera Alarm. (April 30, 2011). *The New Age*. Retrieved from http://newagebd.net/category/fpage/

[39] The Health Rights Movement National Committee (HRMNC) is a collective of physicians and public health activists. The National Committee is their most recent collective form in which they have emulated the organizational structure of the National Oil, Gas and Natural Resource Protection Committee. At different point in the history of Bangladesh, these group of public health activists have organized under different names and platforms to advocate for people's right to health.

attending journalists, and refuted the claim of the Health Minister. They were visibly angry and agitated, but passionately argued against such portrayal of Bangladesh as "cholera country."[40]

The main point of contention in the written statement was that ICDDRB "misguided" the Ministry of Health and Family Welfare (MHFW) to facilitate a new cholera vaccine trial. Since 2009, the Center had been in conversation with the government about a large-scale field trial of an oral cholera vaccine, ShanChol produced by Shantha Ltd, an Indian biotechnological company. In 2011, a multinational scientific collaboration named, "Introduction of Cholera Vaccine in Bangladesh (ICVB)" was initiated with the support from the Bill and Melinda Gates Foundation, the International Vaccine Institute (IVI), and the Directorate General of Health Services, Bangladesh. The initiative was listed as a clinical trial with the National Institute of Health (NIH)[41] and the Center is mentioned as the implementer and prime responsible party of the study. A high-level committee led by the Health Minister himself was formed to supervise the implementation process. The purpose of this multinational scientific collaboration was "to conduct and evaluate the feasibility and effectiveness of a mass cholera vaccination program to reduce diarrhea due to *Vibrio cholerae* in a high incidence urban area, Mirpur, Dhaka" (Qadri et al. 2015, p.1362). After the administration of the first dose of ShanChol vaccine in Mirpur, health rights activists began to mobilize.[42] While health reporters were fixated on statistics and asked the principal investigator of the study about the validity of the trial when no *Vibrio cholera*-related diarrhea is reported, the expert concerns were around the level of thiomersal (a

[40] Press statement of the Health Rights Movement National Committee, May 13, 2011.

[41] In the National Institute of Health's (NIH) clinical trial directory, the trial identifier number is NCT01339845. The NIH record also listed School of Public Health and Health Professions, University at Buffalo, and Johns Hopkins Bloomberg School of Public Health, University of Maryland as collaborators of this particular clinical study.

[42] The first dose was administered between February 17 and April 16, 2011.

mercury-containing compound) used in the preparation of ShanChol. They accused the Center of withholding data about the toxicity of the mercury component of the vaccine.[43]

The members of the National Committee traced the history of the cholera vaccine trial back to the birth of the SEATO Pakistan Cholera Research Laboratory (1960). The history of the Center under the intercolonial Pakistani regime is an uncertain territory within its institutional memory. To this day, the Center struggles to devise a concrete strategy to narrate its moment of emergence as part of a Cold War military treaty. Early attempts to nationalize the history of the Center largely involved erasing this military past. In independent Bangladesh, it remained a sore point for the Center. The National Committee reincorporated this erased past in their written account, arguing that the intention of the Center is historically dubious. To stress this point, Dr. Taher Chowdhury spontaneously added to his reading of the statement:

> The Center has never supported the cause of Bangladesh. In 1971, it had supported Pakistan. In 1979, it again supported genocidal population control program of the US government. Now it is creating grounds for conducting a massive field trial for a cholera vaccine that has already proved ineffective in India. What we need to prevent diarrhea is an improved water and sanitation system, not temporarily effective, expensive cholera vaccines. We strongly believe that it is unnecessary. A vested interest group including the Center is behind this untrue portrayal of Bangladesh as cholera stricken. Cholera did not plague Bangladesh, at least officially, in the last decade. Yet, the Health Minister told the world, cholera is wide spread in Bangladesh. Why?

Ending his speech with a forceful question, he indicated how history of cholera is tangled in other histories. Not only the history of cholera, but also the practices of cholera prevention programs are entangled between interests of the different institutes including WHO, Shantha Biotechnology Company, and Gates Foundation. In other words, the National Committee

[43] See, Mustofa, K. (2011, March 2). Mirpurbashike bishakto tikar ginipig banano hoyeche (People of Mirpur made guinea pig of poisonous vaccine). *Shaptahik Budhbar*.p.4.

interrupted the government's, as well as the Center's, account of cholera in Bangladesh that sought to insulate it from its larger context (Nading 2014).[44]

I have taken cues from the narrative of the National Committee; however, I have read and engaged with it cautiously. In their recollection, they conflated the role of the US government during the war of independence with that of the Center. When digging in archives at various sites, I have come to know how scientists and medical officers defied the US government's order to evacuate the country, "smuggled out" photograph and video footage of the genocidal violence of the Pakistani military force, and spoke to international media in support of the Bangladesh movement. For a brief period in 1971 the US government withdrew its financial support from the Center, yet two epidemiologists continued their work in Matlab.[45] Reading telegrams exchanged between scientists of the Center and the staff of US Department of State, I was able to locate the ethical comportment of individual scientists and the institutional ethics of the Center in the anti-Vietnam war domestic political context of United States. I will return to this point about ethical subjectivity in the realm of science in the following chapter (Chapter 2). In this introductory discussion on the most recent cholera controversy, I bring this issue to describe the breadth of complexity in these entangled histories (Gould 2007; Cañizares-Esguerra 2007; Burson 2013).[46]

---

[44] In her innovative ethnographic account of the dengue pandemic, Alex M Nading (2014) developed the concept of politics of entanglement to describe how Nicaraguans struggle to remain alive to the world around them despite global strategies that seek to insulate them from their environment. I draw from his discussion on insulation to describe how the Center tends to disentangle cholera from its historical context. See, Nading, A. M. (2014). *Mosquito Trails: Ecology, Health, and the Politics of Entanglement*. Oakland, California: University of California Press.

[45] At the time, the Center was in the middle of a controlled field trial of cholera vaccine in Matlab, Chandpur. The study was designed to answer whether an injected vaccine can prevent the diarrhea associated with *Vibrio cholerae*. It was supported in part by a research agreement between the National Institute of Health, Bethesda, MD, USA and the Pakistan SEATO Cholera Research Laboratory.

[46] The concept of entanglement is variously in use in archaeology, science studies, and political ecology. My use of the term is close to the way historians have deployed it as entangled history or histoire croisée. At the risk of oversimplifying a range of methodological concerns, Jefferey Burson (2013) defines the notion of historical entanglement as "the manner in which an object of historical study is constituted at the meeting point or

Reading Entangled Histories

The public health activists gathered at the press conference have longstanding opposition to the scientific practices of the Center. In 1978, they vehemently opposed the internationalization of the Center in Bangladesh. The institutional status of the Center in independent Bangladesh was unstable and shaky until the dissolution of the Pakistan-SEATO Cholera Laboratory and the enactment of a special ordinance that approved its reincarnation as "an international center for diarrheal research in Bangladesh with multinational scientific collaboration and financial contributions to conduct research in diarrheal diseases and directly related subjects of nutrition and fertility with special relevance to developing countries and for matters ancillary thereto."[47]

However, the internationalization was a result of a protracted negotiation between the Center and Bangladesh government. During the negotiation (1972-78), the government was considering the possibility of nationalizing the Center with limited provision of international scientific collaboration.[48] In this nationalized structure, it was proposed that the Center would host and collaborate only with newly independent states. A vision of building the foundation of "Third World science" was evident in this alternative proposal.[49] There was no scope of collaboration with American scientific institutes or scientists. Despite its tie with the Soviet Bloc at the time, the government was hesitant to move for a complete diplomatic dissociation with the

---

intercrossing of various historical contexts" (p.3). I draw from his definition of the concept. See, Burson, J. D. (2013). "Entangled history and the scholarly concept of enlightenment." *Contributions to the History of Concepts, 8*(2), 1-24.

[47] On 20 August, 1978, Major General Ziaur Rahman, then-president of Bangladesh signed a special ordinance (ORDINANCE NO. LI OF 1978) approving the establishment of the International Diarrhea Disease Research Center, Bangladesh (ICDDRB).

[48] See, ICDDRB: Health or Killing. (1986, July 11). *Dhaka Courier*, Vol 3, Issue 1. |

[49] Personal correspondence with public health activists and nationalist scientists who were involved in the drafting of this alternative proposal for the Pakistan-SEATO Cholera Research Laboratory.

US government. The assassination of Sheikh Mujibar Rahman, the first prime minister of Bangladesh, and a return to military regime broke the stalemate in the negotiation. All stakeholders involved quickly came to a consensus in favor of the continued existence of an institute with enemy (Pakistani-American) identity.

The speakers at the press conference were among the nationalist physicians who proposed an alternative future for the Center. In 1978, when the ordinance gave the Center institutional autonomy to continue their cholera research, they opposed the ordinance and called it "a breach of sovereign existence of Bangladesh."[50] Drawing attention to the history, they argued the sovereign interest of the nation-state was similarly compromised and sidestepped in this case. Depicting the nation as cholera country to promote a commercially produced vaccine, the government not only deprioritized its citizens' right to safe water and sanitation, it also risked the nation's economy, particularly the shrimp industry.[51] The historically tangible relationship between scientific endeavor, nation state, and the empire become palpable again in the moment (McLeod 1987; Kumar 1997; Anderson 2002). I encountered a similar moment when I was reading about the scientific expedition of famous German bacteriologist, Robert Koch's scientific expedition to colonial India to isolate and confirm the *Vibrio cholera* as the vector of cholera.[52] As I read his correspondences and letters written from colonial India to his colleagues at Imperial

[50] ICDDRB: Germ Warfare Research in Bangladesh. (May 1986). *Weekly Chinta.*

[51] In recent years, aquaculture has become more and more important for the national economy in Bangladesh. It represents the second largest export industry for Bangladesh after the apparel industry, with 97% of the shrimp produced being exported, contributing about 4% to national GDP2 and employing approximately 1.2 million people for production, processing, and marketing activities. Including their families, this sees approximately 4.8 million Bangladeshi people directly dependent on this sector for their livelihood. Khan, F. C. (2000). A Decade of Trade Liberalization: How has Domestic Industry Fared in Bangladesh? *Journal of Bangladesh Studies*, *2*(1).

[52] In the process of learning more about bacteriologist Robert Koch's scientific mission in colonial India, I have visited the National Archive of India, New Delhi and Robert Koch Institute, Berlin. He arrived in colonial India on December 11, 1883 from Egypt, where he was able to identify the *Vibrio cholera* in the gut of deceased victims of cholera. However, the cessation of the epidemic soon after his arrival prevented him from conducting any decisive experiment. Therefore, he had traveled from Egypt to India in search of "fresh cholera victims."

Health Bureau in Germany, the points of tension and alignment between scientific and colonial missions become apparent to me (Brock 1988). In my earlier ethnographic work on the history of biomedical research on cholera in the region, I have examined at length this relationship and the role of science in the postcolonial nation building in Bangladesh (Kamal 2007). Therefore, when the members of the National Committee were hammering on the point of the government's betrayal of the sovereign interest of the nation-state, I could identify with their historically situated collective feeling of betrayal. I could also see a contradictory rationality at work in negotiating the sovereign existence of the nation-state. While the member of the National Committee emphasis on the government's responsibility to protect the national interest relied on a classical definition of sovereignty, the Health Minister's sense of victory signaled a new form of cosmopolitan statehood, in which a state's legitimacy is defined through its interaction with market forces including WHO and Shantha Ltd (Beck 2006).

Reckoning with Indeterminate Knowledge

Sitting in the audience as the only anthropologist among many journalists at the press conference, I was thinking of how the history of knowledge is a little discussed knot in this entanglement. More specifically, I thought about the value of indeterminate knowledge in the making of global and national public health projects (Petryna 2005). The accumulation of anomaly, error, and incommensurability in the invention of scientific fact has been a vexing question for sociology of knowledge and science since its formative stage.[53] The knowledge

[53] The works of Ludwick Fleck (1935), Thomas H Kuhn (1962), and Robert K Merton (1970) are representative of this epistemological tradition. Bruno Latour in his work *Science in Action* (1987) revitalizes this question and relocates historical value to the contradictory and competing scientific propositions as he proposes to open up blackboxes. He describes blackboxing as a scientific moment "when a matter of fact is settled" (Latour, 1999, p. 304)." See, Latour, B. (1987). *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge, Mass.: Harvard University Press.

about the efficacy of the ShanChol vaccine is indeterminate and inconclusive (Mostofa 2011; Sadiq 2011; O'Leary and Mulholland 2015). Considering the vaccine only provided temporary protection, the strategic use of vaccines to prevent cholera and diarrheal disease in endemic situation remained undecided. In the context of global clinical trials, Adriana Petryna (2009) described this problematic dynamic between public health institutes, clinical research bodies, and the drug market as a problem of information asymmetry.

In Bangladesh, the use of vaccine to prevent cholera remained a point of contention. Even scientists who provided unconditional support to the Center at times hesitated to lend support to vaccine programs (Sack 2003). Those who opposed a vaccination program to prevent cholera defined cholera differently. In an interview with me, one of the four scientists who are globally known for their contribution to the development of the ORS told me, "Cholera is an expression of acute inequality. If you see in a place diarrhea is more prevalent than other diseases. I read it as a symptom of acute economic disparity. I do not support vaccine research for cholera prevention. It is just barking up the wrong tree."

Turning a deaf ear to the leading scientific voices, the Center continued to conduct the anti-cholera vaccine trial. The justification to include ShanChol in the national immunization programs sparked a debate within global governing bodies: Should the public health programs use vaccine at all? How can we best use a cholera vaccine? Partners in Health and Doctors without Borders tentatively answered that the vaccine should be made available in situations of outbreak. Disregarding the debate and hesitancy, WHO began stockpiling ShanChol for emergency situations. Gavi, the vaccine alliance, put it on the list of vaccines it buys for "poor countries." In Bangladesh, the multinational scientific collaboration ICVB began its operation as the first-ever effort to give ShanChol through routine government health care in Mirpur, Dhaka. I

remained intrigued by the way a pharmaceutical product like ShanChol remains in circulation despite indeterminate, uncertain knowledge. And a possible outbreak of cholera elsewhere keeps it visible in Bangladesh despite its statistical and other vernacular forms of recorded absence.

Interjection: "Fresh Material" in Sealdah Morgue, May 1892

> Koch's luck was much better in India than in Egypt. Within days of their arrival in India, Koch and his co-workers had a pure culture of the cholera organism. The secret was the availability of fresh material. The first isolate came from a 22-year old man who had died only 10 hours after the onset of the infection. Less than three hours after death the body had been autopsied at the Sealdah Hospital in Calcutta and sample taken for culture. The organism isolated was morphologically identical to that seen by microscopy of intestinal material from cholera patients, both in Egypt and in India.
>
> Thomas Brock, 1999: 159

There is always a piece of the story that remains unknown to us. Every time, I have picked up the German bacteriologist Robert Koch's biography, I have longed for those unwritten pages in history. I want to know more about the 22-year-old man who died an anonymous death from cholera in colonial Calcutta.

How long did he suffer from the bout of cholera? Was he a street-vendor? Did he migrate from nearby villages to the city in search of good life? Was he Adivasi, Hindu or Muslim? Was he cremated after the autopsy?

I have thought about the way scientific activity could transform dead bodies into fresh material. How fresh was his death? Was he still warm when he was taken to the autopsy table?

At the National Archive of India, New Delhi three red-taped files were brought to me when I looked for archival records on Robert Koch's expedition to India. For three weeks, I have minutely read through these torn, brown and delicate documents. There was a hand-drawn map of cholera transmission through canals and sewage system in colonial Calcutta. Each turn in the map had a number. Water bodies were also marked with letters. However, there were no names of places.

In search of social lives of the "fresh material," I found myself at the archive of Robert Koch Institute, Berlin. The institute included a museum with a carefully curated visual display of his belongings. A list of things he carried with him during his journey to India:

1 Zeiss microscope
2 hand lenses
3 bottles of cedar oils
600 microscope slides
3000 cover slips
4 dissecting needles
20 medium-sized watch glasses

And the list continues.

The brass Zeiss microscope from the list is also part of the museum display. It is shrined inside a glass box with wooden mahogany frame. Standing next to the box in spectral distance and proximity to the fresh material, I thought about how our ethnographic work is as much about acknowledging not-knowing, as it is about knowing.

CHAPTER II: POLITICAL ECONOMY OF LIFE SAVING RESEARCH

Doing "good science"

Figure 8 Three representatives of the ICDDRB Staff Welfare Association are addressing the members of the association at a protest gathering. The banner behind them reads "Meet Our 9-points Demand." June, 2015

In 2007, for the first time since its birth, a Mexican national, Dr. Alejandro Cravioto, was appointed as the Executive Director of the Center. The news came as a breath of fresh air. Historically, this position is unofficially reserved for scientists from the US. At his welcoming ceremony, some Bangladeshi members of the ICDDRB Staff Welfare Association (hereinafter SWA) termed his appointment as an epochal shift. Their excitement around Cravioto's appointment is an expression of premature affinity with a scientist of "Third World origin." It

also points to the deeply-rooted, but never properly addressed race relation in the practices of the Center (Harding 1993; Redfield 2012; Geissler 2015).[54]

However, the breath of fresh air quickly turned poisonous. The newly appointed director did not necessarily respond to the assumed affinity with Bangladeshi nationals. The members from the SWA tried to open up a conversation about the organization of the Center so that the division between international and national staff in different scientific research positions could be renegotiated. Some national scientists wanted access to privileges exclusively enjoyed by scientists of foreign nationalities. Paying no heed to their concerns, Cravioto began restructuring the organization and cutting down staff benefits including the subsidized meal at the canteen.[55] Many cost cutting measures had been taken in the past, but the management always left the canteen subsidy untouched in light of its social weight. The news of meals at an increased price met with unexpected resistance. It was not simply a matter of increasing the price of egg, the members of the SWA read the proposal as an attack on the limited privileges of Bangladeshi staff. Until this moment, the role of SWA was "rather innocent" as described by many members. It occupied itself with organizing an annual picnic, along with cultural festivals during *Eid* and Bangla New Year. In that moment, it morphed into a collective bargaining body and began to operate more like a trade union. It became a space for the dissident voices of the Center to

[54] The unequal social condition of scientific practices is a much-discussed question in social studies of science. Aside from these theoretical developments in the Western academic discourses, scholars and activist from postcolonial locations, referring to the experience of state development projects, critically examined the hegemonic, unequal scientific enterprises (Third World Network 1993). Literatures produced by the Alternative Science Movements in India are an example of such critical account (Nandy 1980; Sardar 1988; Vishvanathan 1988; Alvares 1992; Shiva 1989). In the context of Bangladesh, echoing the arguments of Alternative Science Movement of India, Farida Akher (1996) critiqued the international aid-dependent scientific projects in Bangladesh. See, Akhter, F. (1996). Military Objectives of Cholera Research and Violation of Biomedical Ethics in the Research on Human Subjects. *UBINIG Series on ICDDR,B,* 1. Dhaka, 1996.

[55] The subsidized meal at the Center is a talking point among the public health professionals in Dhaka. I have heard from staff of the National Institute of Preventive and Social Medicine (NIPSOM) jokingly referring to ICDDRB staff as the "egg boys" since the price of egg is significantly low at their canteen. It does not reflect the changes of price of eggs in Dhaka.

organize. However, they remained mindful of the international reputation of the Center. The main organizers from SWA told me: "We are only against the corrupt administration. The Center has been immune to the infectious corruption that exists in the country. Now it has infected us too, it will kill the good science of the Center. We cannot let that happen."

The rhetoric of "good science" has a moral appeal to all levels of staff of the Center. It refers to a set of actions. In the introductory discussion of this dissertation, I have cited a security guard's reference to good science when talking about the Center's disregard for the national government. However, what action is exactly indicated to define good science is dependent on the position of the actors in the network (Latour 1987; Star 1995).[56] It depends on the moment, context and the forms of evocation as well. In 2001, the-then Executive Director of the Center, in his acceptance speech at the Gates Award for Global Health ceremony, said, "We do science being guided by humanitarian principles. Finding new knowledge is nice, but if you do it with a purpose it's even nicer."[57] At the same event, the Executive Director was also authorized to read a letter from the Prime Minister of Bangladesh, "ORS was innovated in Bangladesh and has become celebrated knowledge – and an export from Bangladesh. I am confident that the Bangladeshi professionals together with international experts working at the Centre can continue to export knowledge for people in need." In the ceremonial context, the goodness of science is embedded in its ability to export good knowledge and act with a purpose. At the protest gathering, the organizers of SWA appeared determined and declared their uncompromising

[56] In *Science in Action* (1986) Bruno Latour described technoscience as a set of network in actions. However, the interactions come in many forms as is evident in the case of the Center.

[57] On the eve the New Millennium, in 2000, the Bill and Melinda Gates Foundation declared a new award for excellence in global health. The ICDDRB was named as the first-ever recipient of this award.

struggle to save good science from the malpractices and corruption of some foreigner scientists in the Center.

Building the National Economy

The members of the SWA were careful to not tarnish the international reputation of the Center in any way. They mobilized internally and communicated with all levels of staff about the ways the administration was violating the 1978 ICDDRB Ordinance. Along with the existing donors, the Ministry of Health and Family Welfare (MOHFW) was also made aware of the growing disquiet among the local staff. In August, 2011, considering the nature of the concern, the Ministry decided to form a three person's special committee to investigate the allegation. The committee was particularly assigned to investigate the use of government funds donated to the Center for its infrastructural developments. The finding of the investigation was never officially made public; however, the Board of Trustee expressed lack of trust in the Executive Director, Alejandro Cravioto. In June 2012, he was relieved of his responsibilities. Both the government and the Center took particular measure to ensure that the termination of Cravioto's contract did not turn into a media scandal. However, one of the leading dailies leaked the investigation report with a news report titled, "A quiet revolution at ICDRRB." The report included a statement of a member of SWA, "The way British rulers had exploited us; the international scientists sitting in authoritative positions are also exploiting us in the same manner."

Public health activists have long relied on anti-colonial rhetoric's to challenge the research activities of the Center. However, internal critiques have focused on bioethical violations in its research practices (McCord 1978; Briscoe 1978).[58] To know more about this

[58] In a letter to the editor of *The Lancet* (April 8, 1978) Colin McCord a scientist from the Cholera Research Laboratory wrote: "Experiments have been done at the CRL which have paid little regard to the rights and needs of the subjects of research and which have been done without informed consent. The following experiments would not, in my opinion, have been passed by ethics committees elsewhere: (a) Radioactive materials were given to cholera

galvanizing anti-colonial sentiment among the staff of the Center, I decided to approach the spokesperson of the SWA. I will call him Tanvir Karim. He was hesitant and asked me to provide my questions in advance. My questions were brief and simple. I asked about the objectives of the movement. Two years later he responded. In 2015, I received an email from him and I quote:

> This is virtually an apartheid system here. Bangladesh government is the largest donor of this Center. This is our money laundered in the name of our people. As a scientist, I am knee deep in this anti-corruption struggle. Because, apart from the financial impact of ICDDRB on Bangladesh economy (ICDDRB is currently spending over $20 million a year in Bangladesh and has about 3500 local employees), it is one of the few institutions of international fame in a developing country and the name of ORS, which is saving millions of lives every year, Bangladesh have virtually become synonymous. We needed to step up.[59]

The remainder of his email provided me with a detailed account of recent financial corruption among the senior administration.[60] The email came to me just when dissident scientists of the Center began to organize again and were coming out in public with their grievances. His brief

---

patients; (b)Tubes were passed through the entire intestinal tract from mouth to anus to measure the "transmural electronic potential" in cholera patients; (c) Biopsies were taken from the jejunum and other parts of the intestine; (d) Proper treatment was withheld from patients in coma and suspected to have acute hypoglycemia in order to test a hypothesis; glucogen was given instead of intravenous glucose to see whether glycogen stores were depleted. Lever glycogen was depleted and one patient died who might have survived with prompt administration of glucose; (e) Catheters were passed through the heart and into the pulmonary artery to study the haemodynamic effects of cholera and of different kinds of fluid replacement; (f) When it was observed that there was a high incidence of cholera in villages downstream from the Cholera Hospital at Matlab, the first reaction was not to improve the sanitary problem, but to use the these villages as a place to test whether installation of tubewells would prevent cholera. The experiment was a failure. Subsequently, measures were introduced to prevent contamination of the water by the hospital" (p.768). See, McCord, C. (1978, April 8) International Research Laboratory in Bangladesh [Letter to the Editor]. *The Lancet,* p. 768.

[59] I have permission from Tanvir Karim to use his email as part of this dissertation.

[60] In 2015, the dissident voices from the Center became stronger over a rental agreement that was signed between the Center and BRAC. The agreement allowed BRAC to use 40,500 square feet of the Center's space at a throwaway price for 49 years. It is not that the agitating staff members of the Center have ideological opposition to any collaboration with BRAC. They were organizing against the gross mismanagement of the Center's fund. In November, 2015, they published a White Paper listing all corruptions that occurred in the past five years. The issue that got most media coverage was the chain of expense related to the appointment of a Chief Executive Officer (CEO) for the Center. An Irish private company, SRI Executive, was hired as a third party to find a candidate for the position. The agitating staff members termed this expense as "robbing money allocated for the poor."

reference to the apartheid system helped me decode a draft proposal I found in the personal archive of A K Mansur. In 1986, he wrote a proposal for the Board of Trustee for rescuing the Center from a grave financial crisis.[61] In his proposal, he listed the violations of the Ordinance with the following recommendations:

> Keeping the Center's main accounts in foreign banks and not in a nationalized bank is not only a violation of the ordinance, but also stealing the money back to the economy where it came from [donor countries]. This is causing a loss to the nation of the order of $0.5 million annually.
>
> Evasion of income-tax for the expatriates is violation of the ordinance. The donor agencies should be held immediately responsible for compensating the loss.
>
> Elimination of expatriate staff from administrative and financial positions which are created violating the ordinance. The ordinance only permits international appointment for cases where local expertise may not be adequate. These positions can very efficiently be performed by local personnel.[62]

What began to surface from the scientists struggle to break apart an apartheid system are classic concerns about aid economy in Bangladesh. In his email, Karim proudly mentions how much foreign currency the scientists at the Center are contributing to the national economy. The recommendations from the 1986 proposal also explicitly suggest that the virtual apartheid and the financial corruption of some non-scientists expatriates are hurting the national economy. Through this register of grievances, an explicit connection between the national economic growth and cholera research in Bangladesh is made here.

---

[61] On November 26, 1985, in the face of serious financial crisis at the Center, the Board of Trustee decided to take a number of actions including eliminating all international level Bangladeshi scientific staff. A K Mansur wrote a draft proposal for the situation opposing such discriminatory actions towards the Bangladeshi scientists. At the time, he was a member of the Board of Trust and presented this proposal to the board on June 12, 1986. I have gathered this information from reports of the Board of Trustee Meeting, ICDDRB (November 26-28, 1985 and June 12-13, 1986). These reports were part of A K Mansur's personal archive.

[62] I quote from a copy of a proposal kept in a brown office file at A K Mansur's personal archive. On the front cover of the file, next to the subject line, Mansur wrote, "ICDDRB Financial Crisis, 1986."

This question of economic contribution of the Center was reinforced in my conversation with a scientist who was among the 16 international level Bangladeshi staff "discharged from their duties without proper notice and explanation."[63] Emad Rabbi recollected:

> In 1974, there was liquidity crisis in the national reserve. Dead bodies of famine victim began to appear in the city corners. The diplomatic equations between Bangladesh and donor countries were unresolved. The government was suffering from a great moral dilemma. Indira Gandhi's government [In 1971, the Congress Party leader, Indira Gandhi was the Prime Minister of India] earned our loyalty with their support to our struggle. On the other side, there was the promise of national development in the form of international aid. In this moment of crisis, the Center played a crucial role in mobilizing aid and kept the national reserve running. The role of the scientists at the Center is manifold. How do you think I got this balding spot on my head? You would be mistaken to think that we neglected our scientific responsibilities for relief work during the famine. The vaccine trial was not discontinued for a second. That is how committed we were to science and to the people.[64]

Reading these excerpts from various sources together, I come to recognize the role of the Center in building the nation in strictly economic terms. From the creation of jobs and maintaining a salaried consumer class, to negotiating the ownership of aid money and tracking it back to the nationalized bank, the Center is claiming a crucial role for itself in the history of economic growth in Bangladesh. However, the precise nature of their economic impact remains a matter open debate, and requires further engagement with the histories of international aid in Bangladesh. Some local economists view the Center's primary "contribution" to be that of helping to create an external aid dependent economy (Mohammad 2006; Chowdhury 2012). In

[63] See, ICDDRB's austerity drive. (1986, May 31). *The New Nation*.

[64] In March, 1974 the price of rice rose sharply in Bangladesh. The same month stories of widespread starvation in Northern districts of Bangladesh began to surface in the national dailies. From April to July, Bangladesh was hit by heavy rainfall and devastating floods along the Brahmaputra river further aggravated the situation. The newly independent state, its devastated infrastructure and markets, was unprepared to deal with the situation. The cold war political economy and Bangladesh's alleged alliance with the Soviet Bloc delayed the international aid and relief prolonged the period of mass starvation. See, Sobhan, R. (1979). Politics of Food and Famine in Bangladesh. *Economic and Political Weekly*, *14*(48), 1973–1980.

my earlier work, I have described the famine of 1974 as the decisive moment for international development work in Bangladesh and showed how the famine compelled the government and local faction of leftist groups to comply with the preconditions of the aid-flow.[65]

Twenty years apart, the words of dissident scientists echo each other. They each talk about various forms of scientific labor with direct and indirect monetary impact in the national economy – advancing vaccine science, mobilizing aid money and volunteering in relief work. To me, this claim is revealing because it brings a relatively unattended sphere of analysis in social studies of science to prominence: the economic rationality of scientific practices (Carroll 2006). In post colonial South Asia, scholarly interests are largely focused on the ideological work of science in the making of the modern nation state (Abraham 1998; Prakash 1999).[66] These moments of internal debate and struggle in the Center prompted me to pause and reconsider the weight of ideological work in relationship to the economic interest of different actors in the making and unmaking of the Center and Bangladesh. Listening to Bangladeshi scientists grudgingly talk about exclusive privileges enjoyed by the international scientists and non-scientist expatriates, I came to notice how mundane economic activities like incentives, costs are governing and negotiating the future of the Center.[67] In their demand for equal access to a

[65] The famine of 1974 was a decisive moment in the history of Bangladesh. One side of the coin shows its ambiguous diplomatic status, the strong presence of Maoist rebels in the northwestern region of the country. On the other side of the coin, we see how the famine compelled the government and local faction of left-minded people to comply with the preconditions of the aid-flow. To name a few, we find Fazle Hasan Abed and Dr. Mohamad Younus representing two globally recognized development initiatives BRAC and Grameen Bank respectively; both of these initiatives gained momentum during this famine. Their biographies support this observation.

[66] To speak of the formation of India as a nation-state in its relationship to colonial science, Gyan Prakash, in his work *Another Reason* (1999) documented the processes through which western scientific reasons are reinscribed in the local traditions to produce a unique Indian modernity. He underscored the point that the hegemonic effect of colonial science is locally specific.

[67] In a recent lecture titled, Bruno Latour (2014) has argued against the radical tendency to read laws of economics as fixed as the laws of physics. He suggests, "The economy reached its extraterrestrial status: unbound at last, unregulated, infinite (p.7)." Accordingly, in my analysis, I am interested in the specific moment of economic crisis, mundane economic activities and the way it shapes the practices of science in the Center. See, Latour, B. (2014). On

salary structure consistent with the United Nation, I could trace the economic rationalities of the Center's continued legacy in the postcolonial Bangladesh. Some things and people count, whereas others do not.

Serving the Nation, Counting the Dead

On June 29, 2015, the national staff of the Center observed a two hours walkout. The news and photographs of the protest made headline news in the national dailies. In response, the Board of Trustee called an emergency meeting and sat with the representative of the SWA. They agreed to fulfill the main demands of SWA and promised to review the salary structure in accordance to the UN compensation and salary scale. The canteen privileges were also restored. However, the movement continued.

After a few email exchanges with Tanvir Karim, we met at a coffee shop near the Center in Dhaka. In our meeting, he walked me through his extraordinary career before he paused to explain his position in the movement. As a health scientist, his work is published in globally recognized science journals. He had opportunities to run workshops and seminars at prestigious universities like Harvard and Johns Hopkins. Everyone with his stature is turning a blind eye, yet he chose to get involved. He could have been in the laboratory, or in his office writing a research paper, but he was sitting in stressful meetings with the management. Implicit in this narrative of his extraordinary career was the sacrificial logic of his participation in the movement. He was sacrificing his time, labor and comfort.

For him, their movement is supremely rational and realist in nature. This distinction was critical to him and distanced him from the public health activist who critiqued the practices of the Center (Chapter 1 A False Cholera Alarm). We began the conversation in Bangla, and then he

---

some of the Affects of Capitalism. Retrieved from http://www.bruno-latour.fr/sites/default/files/136-AFFECTS-OF-K-COPENHAGUE.pdf

comfortably switched to English and then to French, "Parlez-vous français?" I was desperately going through my memory, trying to remember the only French sentence I had from the Alliance Francaise, "Ne sais pas." We both laughed. It eased the awkwardness in the room. I took a moment to respond. He was amused by his own abilities and I was impressed at his articulate, charismatic performance. He then took a rather longwinded way to explain the rationale of the SWA movement:

> In a context like Bangladesh, scientific activities are always done in a controversial, chaotic ground. We need to manage different interests. Let me give you an uncommon example. In 1972, the Center undertook a comprehensive population survey in Matlab. It was not directly commissioned by the government, but we were asked to assess the casualties of war as part of our routine surveillance. In the area, the Pakistani army made its first appearance in April. You have been living in Matlab, you must be familiar with this history. Our study concluded that there were a total of 868 excess deaths in this area in the wartime period from all causes. Then we looked at whether this number could help estimate the probable overall demographic impact of the war in Bangladesh. The number we came up with contradicted the Prime Minister's claims of 3 million deaths. The excess death rate in Matlab implies an overall excess number of deaths [in the whole of Bangladesh] of only 5,00,000. The study was shelved. Doing science is like doing politics, we served the nation by putting knowledge back on the shelf.[68]

In the post-independence Bangladesh, a greater extent of casualties helped the nation mobilize international support. As I was sitting there and listening to him talking, all I could think was Bruno Latour's (1983) now classic article, "Give me a Laboratory and I will raise the World." It was an explicit moment in history in which science and nation state were actively modifying and displacing the boundaries of each other. He emphasized this malleability to deconstruct the idealist assumption that there is an imaginary plain where scientific studies could circumvent other influences. In the aftermath of the war of 1971, to mobilize international support and sympathy for the nation, the number of casualties was crucial to constructing a particular genocide narrative. The number of civilian deaths that the Center's study projected turned out to

[68] See, Curlin, G. T., Chen, L. C., & Hussain, S. B. (1976). Demographic Crisis: The Impact of the Bangladesh Civil War (1971) on Births and Deaths in a Rural Area of Bangladesh. *Population Studies*, *30*(1), 87–105.

be much lower than the Bangladesh government official figure of three million deaths. Therefore, shelving knowledge from the public sphere amounted to an act of serving the nation (Jasanoff 2004). His discussion here also suggests that the routine epidemiological surveillance and production of demographic data in Matlab included a process of removing and classifying knowledge (Gallison 2004, 2010).[69]

From Karim's charismatic but convoluted discussion, I gathered that the demands of the SWA are not burdened with the utopia of the public health activist. The focus of this movement was to undo the income inequality without destabilizing the position of the Center in the global public health network. In his rhetoric of anti-colonial struggle, a vision of nationalist science is taking shape that is not aimed at challenging the global politics of public health or politics of scientific knowledge production (Gupta 2012).[70] They demand a nationalization of privileges for scientists without losing the global edge of the Center. Perhaps, when Karim talked about managing different interests, he alluded to this delicate balance between serving the nation and making its research globally relevant.

Organizing an Anti-Colonial Struggle Today

In the face of this sustained controversy and tension around the divide between of national and international staff, the Board of Trustee proposed an amendment to the Ordinance to rename the Center as Dhaka Institute Global Health. On December 2015, the amendment was officially sent to the MOHFW for review. The members of SWA rejected this proposal. To protect the

[69] Peter Galison (2004) while studying the history of classified and secret science argued that the removal of knowledge is an integral part of the contemporary state surveillance and state-making process. See, Galison, P. (2004). Removing Knowledge. *Critical Inquiry*, *31*(1), 229–243.

[70] In *Red Tape* (2012), Akhil Gupta ethnographically explored the bureaucratic practices of Indian government and showed how bureaucratic indifference persists even when local bureaucrats do not ideologically subscribe to the system. They develop apathy towards the enduring suffering and poverty for their own economic survival.

international stature of the Center two members of the SWA filed a Public Interest Litigation (PIL) with the Supreme Court of Bangladesh and the court ordered a stay on the proposed amendment. This legal stay has not impacted the everyday practice of the Center.

As I read the legal argument of the petitioners and compare it with the alternative proposal drafted by the public health activists during the internationalization of the Center, the contrasting nationalist visions of science helped me recognize the moral appeal of anti-colonial, nationalist rhetoric. The moral appeal also reflects on the banality of this rhetoric (Billig 1995). In 1978, public health professionals were fighting for nationally-situated autonomy of the Center, now scientists are engaged in a legal battle to halt that possibility. The SWA members are expressing their political desire to decolonize the Center with a global governance structure, when they chant slogans such as "blood sucking scientists, go back to your country, and go back to your country." They are not really asking anyone to go back. The contradiction of the slogan aptly captures the limits of this nationalist persuasion (Weiss and Thakur 2010).

In the PIL, the members of the SWA asked for a stay order on the proposed amendment to the Ordinance primarily on the ground that "the proposal of renaming it from International Center to Dhaka Center would jeopardize the Center's international collaboration in making new biomedical knowledge therapeutically available for local and global poor. It is a population research center with the scope of transnational scientific collaboration. Bringing it under the direct national bureaucratic structure is seen as an attack on globally celebrated scientific philanthropy."[71] Reading the text of the PIL, I thought, the SWA members are protesting against the corruption of the foreigner/international scientists, but their ultimate fear is to see the Center in the hands of a corrupt national bureaucracy. Their depiction of good science recalls how the

[71] I quote from the copy of the Public Interest Litigation submitted to the Supreme Court of Bangladesh.

revolutionary philosopher, Frantz Fanon, talked about projection of the colonizers' fear as psychic imbrications of the colonized native (Fanon cited in Boyce 1987). The National Committee and other similar activist bodies chose to observe the movement at a distance, without actively providing support. They thought, the SWA's concerns about national corruption uncritically echoed the hegemonic voices of the global governing bodies like UN or Transparency International. I was deeply unsettled because of the crude objectification of people in poverty in this particular decolonial moment – people in poverty have become a currency to legitimize the struggle. The SWAs vision of decolonization without destabilizing the role of global actors like WHO, Gates Foundation or International Vaccine Institutes in the management could always be read, following Fanon, "as a token of an indefinite oppression (1965, p.180)."

Interjection: Cholera killed many in Comilla, January 1964[72]

"I inherited my father's passion for medicine," Dijen Sen was proudly relating to me his family's longstanding history in health care profession. Upendra Sen, his father was a compounder[73] and his paternal uncle was a *kabiraj*.[74]

On a lazy afternoon we were sitting in his pharmacy and organizing the medicine register. His father's stethoscope was hanging on the tin-wall, collecting dust. Tangled in spider-web, three lime green bottles with measurements engraved in it were on the top shelve of his

[72] See, Kumillate cholera bahu manusher pran nilo (Cholera killed many in Comilla). (1964, February 4). *The Daily Sangbad*.

[73] To expand the market of Western medicine, the British colonial administrators introduced community pharmacy practice in some parts of India. A "compounder" was someone who assisted a trained pharmacist in preparing medicines. In the absence of proper pharmacological education and regulation of pharmaceutical practices, the role of "compounder" in pharmacies varied from place to place. This institutional ambiguity in defining the role of "compounder" continued in post-colonial period. Popular use of the term in Bangladesh refers to a health care provider who is "inferior," "subordinate" to a physician in government hospital.

[74] A person with the knowledge of *Ayurvedic* medicine.

medicine cabinet. He had always mentioned how his father's life as a compounder inspired him to become a health worker. I was fascinated by the ways he was narrating histories that are not often told together.

The apothecary table belonged to his father. It was a rectangular mahogany box with a few side drawers. Bronze handles showed signs of aging. Dijen Sen now use the table to store his books and manuals that he collected from various training programs. The table, glass bottles and the stethoscope in his pharmacy captured a tangled moment of colonial history.

Dijen Sen treasured his father's life story and took pleasure in sharing it, "My father was assistant to a pharmacist in Allahabad."

As he continued, I become curious about the role of community pharmacy in the expansion of western medicine in colonial India.

We were talking about 1940s. His narrative was running thin, "I do not have much details of his life in Allahabad. I have never even set foot in Kolkata, let alone Allahabad. I can't even imagine his journey. From here and there, I pieced together my father's story. Mostly, people talked about the partition and how he had returned to Shatnal. Time was already infected with communal venom. Allahabad was a Muslim dominated area, even my father's mentor was a Muslim man. It was not safe for a Muslim family to host a young Hindu apprentice. It took him years to gain trust of his mentor. But, his training was interrupted when the tension between Hindu and Muslim become untenable.[75] One night, the pharmacist gave him Rs.10 and said,

[75] The collapse of three hundred years of British colonialism in India divided the subcontinent into two independent nation states: Hindu-majority India and Muslim-majority Pakistan. The talk of partition and negotiation between political leaders from All India Muslim League and Indian National Congress started long before the declaration of independence on August 1947. With these political processes of designing two nationstates began the mass struggle to make peace and adjust with constructed categories of religious community. Millions of Muslims trekked to West and East Pakistan (now Bangladesh) while millions of Hindus and Sikhs headed in the opposite direction. Dijen Sen family opted for Pakistan despite being Hindu. For an eloquent history of partition in South Asia see, Zamindar, V. F.-Y. (2007). *The Long Partition and the Making of Modern South Asia: Refugees, Boundaries, Histories*. New York: Columbia University Press.

"*mudke mat dekhna* (don't look back). Even before riot erupted in Allahbad, the city was burning in mistrust."

Dijen Sen said several times that his imagination failed him when he tried to think of his father journey from Allahabad, "I was born after the partition. These are memories of that time borrowed from my community. Our neighbors, relatives were desperately trying to cross the border and move to India. Hindus belong to India."

"The British divided people and land along religious. As if, religion was a thing. It was a really dark and toxic time." He said, as if he could still see the fire. I thought, his own experience of everyday communal tension in Shatnal probably burnt in the same fire. When I sat down with him to record the story of his father, I was not anticipating such intimate account of partition story. His family history uncovered how partition continued to influence peoples experience of their past, present and future.

The phrase dark time echoed in my mind. Although, it was not an uncommon metaphor to describe the partition of India and Pakistan and its violent aftermath. Upendra Sen's pedagogical ties were in Allahabad (India) while most of his families were landowning peasants from the East Pakistan. Just another story of moving people and immovable ties.

I knew that Upendra Sen died during the cholera epidemic of 1964. I was sitting with him, all prepared to record the account of a son who lost his father to a violent outbreak of cholera. He wanted to talk about his father's passion for medicine, "Against the grain, my father returned to East Pakistan."

I have heard from other in the village about Dijen Sen family's odd loyalty to the place. When most Hindu families were looking for an escape to India, his father returned, his grandmother, Malobika Sen refused to leave her *gerosti* (household). She was loyal to her

religion, but was equally loyal to the Meghna river flowing behind her house. She felt deeply indebted to the land she grew crops for years. She was reluctant to define her community, her belongingness in strictly religious terms.

Dijen Sen's family never left for India.

After partition, Upendra Sen was struggling to return to his passion. For few years, he lent his hand in farming and other agricultural labor. During this time, he opened a small pharmacy at home. He would attend patient and make medicine at a corner of their *boithak-khana* (drawing room). The green glass bottles in Dijen Sen's pharmacy are the token of this time.

"I do not have any memory of my father." Somehow, it was important for him to remind me the story that he inherited pieces of histories and memories as inheritance.

"I inherited passion for medicine and a stethoscope from my father and many stories from my mother and grandmother. She told me stories of my father miraculously saving the life of an epileptic child. I learnt from my grandmother how land was ascribed communal identities during partiton. Words strewn in grief they narrated the tragic story of my father's death. He died during the cholera epidemic of 1964. My uncle too died from cholera. In matters of a day, four members of my family died one after another.

Dijen Sen's mother and grandmother described a time when cholera was the name of death in Shatnal.

PART II THE REGIME OF SAVING LIVES

Matlab *thana*[76] is now globally known as a gold mine of epidemiological data.[77] It is often described as a population laboratory with no walls. Since the establishment of the field hospital in Matlab, every incidence of birth, disease, and death that has occurred among its inhabitants has been recorded. Each incident of death is followed by a verbal autopsy by a community health worker. This has been the case for the last fifty years (Smith 2010). It has gone towards making the *thana* the single most important global epidemiological surveillance system, available for global public health and pharmaceutical research (Chen et al. 1999). The World Health Organization (WHO) has identified the Matlab surveillance system as a global public good. In a more recent rendition, in a *New York Times Opinion* the work of the Center in Matlab was as "half a century of saving lives with data."[78]

Therefore, here the word *regime* suggests manner, methods, or system of collecting data and treatment of diarrhea/cholera patients that govern the conduct of the public health professionals (Ong and Collier 2005). It means processes of collection and circulation of

[76] Thana is a local administrative body refers to a sub-district. Depending on the context it could also refer to an area under the jurisdiction of a police station.

[77] The VillageZeroProject described Matlab as a gold mine for epidemiologist or anyone interested in public health. See, VillageZeroProject. (2012, June 12). A Journey to Matlab. Retrieved from https://villagezeroproject.wordpress.com/2012/06/09/a-journey-to-matlab/

[78] See, Lee, A. (2015, November 17). In Bangladesh, a Half-Century of Saving Lives with Data. *The New York Times. Exclusive Online.* Retrieved from http://opinionator.blogs.nytimes.com/2015/11/17/in-bangladesh-a-half-century-of-saving-lives-with-data/?_r=0

epidemiological knowledge about death, disease, and suffering that can be spoken of and termed a global public good (Kleinman and Kleinman 1997; Boltanski 1999; Farmer 2004; Das 2007). To say that this regime relates to the question of *saving lives* means that it designs the spaces of ethical action, inaction, and ambivalence for public health professionals, as well as people in poverty. How and when to save lives? How (not) to participate or negotiate participation in this public health mechanism? In this part of the dissertation, I explore the operation of this regime of saving lives in Shatnal, Uttar Matlab.

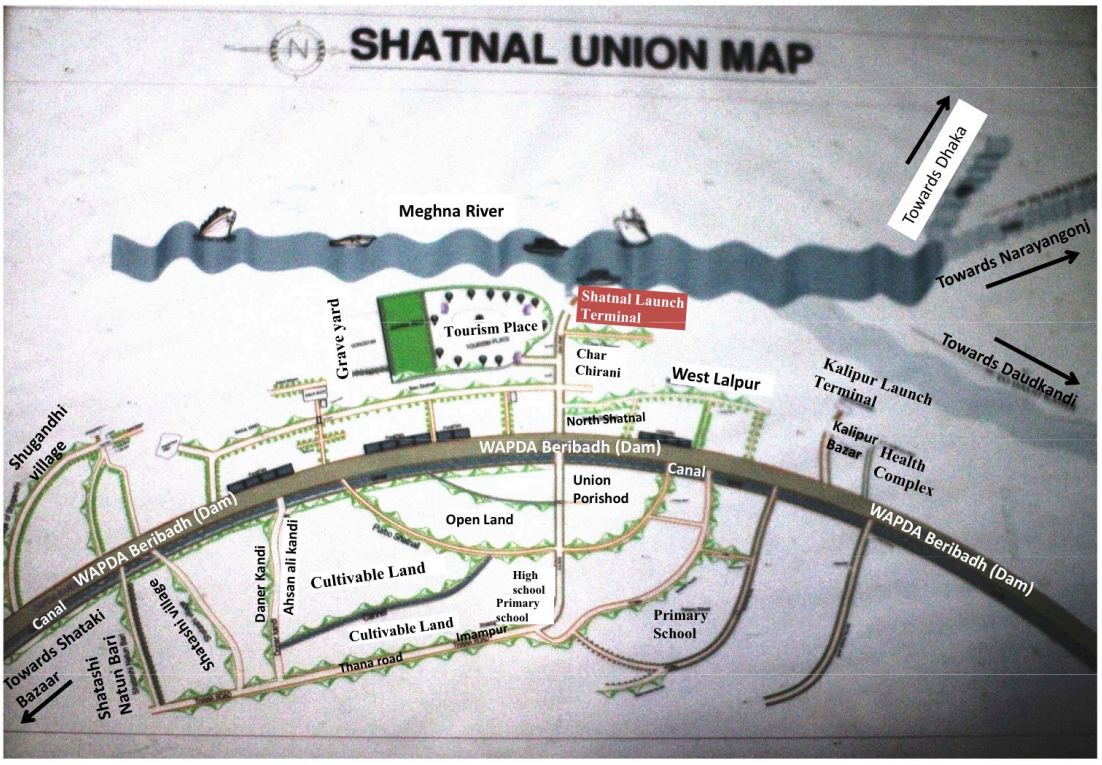

Figure 9 This hand drawn map of Shatnal Union is hung on the wall of the Union Parishad Chairman's office. A local *amin* (indigenous map-maker) created this map. What is striking for me in this visualization of the area is the depiction of two sinking ships in the Meghna river. The Center in Shatnal is not shown in the map; it is situated right beside the primary school.

The Center in Shatnal was part of this globally recognized surveillance system until 1979. Then, the ICDDRB arbitrarily decided to discontinue their routine epidemiological surveillance work in Shatnal and transferred the ownership of the Center to the community. However, the

CHWs were responsible for meticulous maintenance of patient records to determine prevalence and incidence of cholera in the area. Both the community and the CHWs regarded this discontinuation on the part of the ICDDRB as an act of abandonment. The long term presence of the Center in Matlab town brought infrastructural development to the area. Considering the significance of the place to international aid agencies, the government arranged power, water and gas supply for the area promptly. Shatnal still does not have gas supply and access to power supply is limited. Until 1992, there was no government health facility in Shatnal. It is in this simultaneous presence and absence of national and transnational health infrastructure that the regime of saving lives operates.

The chapters collated in part II of this dissertation describe this interplay of abandonment and attention in the making of public health system in Shatnal (Biehl 2013). The first chapter takes issue with the infectious disease centered national health policy and programs that are continuously informed by the research of the ICDDRB (Chapter 3 Setting up Clinic). I tell the story of the Center in Shatnal to shift the focus from the impoverishment and instability of the place to the philosophical design of the Primary Health Care model that the Center promoted for Bangladesh (Street 2014).[79] It refers to the "essential health care" that in the context of "developing world" is designed to provide selective care. [80] The governmental and non

[79] In *Biomedicine in Unstable Places* (2014), Alice Street tells a fascinating story of people's struggle to make biomedicine work in a public hospital in Papua New Guinea. It provides a detailed ethnographic account of how people in Papua New Guinea experience the hospital as a space of institutional, medical, and ontological instability. See, Street, A. (2014). Biomedicine in Unstable Places: Infrastructure and Personhood in a Papua New Guinean Hospital. Durham, NC: Duke University Press.

[80] The Primary Health Care (PHC) model was part of the declaration of the International Conference on Primary Health Care held in Alma "Ata, Kazakhstan in 1978 (known as the "Alma Ata Declaration"). Later, the WHO adopted to the model as part of its "Health for All" program. For a brief history of selective PHC model see, Cueto, M. (2004). "The Origins of Primary Health and Selective Primary Health Care," American Journal of Public Health, 94 (11), p. 1864-1874.

governmental health services available for people in Shatnal reflect on this selective understanding of health care. The underlined assumption is that the recently decolonized nation-states brought together under this label of "developing world" neither can afford, nor can manage the elaborate, extensive biomedical care available in wealthy states. The programs are designed to attain the globally-defined goals for national progress of Bangladesh: firstly, to decrease child mortality rate with cholera prevention, immunization and safe-water programs; secondly, to manage the population size with family planning programs. People's health outside of these set goals remains unattended. The government and scientific gaze of the Center are only focused on certain pathological condition of infectious diseases, more specifically on cholera/diarrhea. I describe this model as an everyday form of minimal biopolitics where public health programs in Shatnal not only takes interest in providing care selectively, but also risks life of its citizens to achieve the national development goals (Redfield 2013).[81]

In the following chapter, I illustrate the way public health programs and the Center in Shatnal risk lives to save lives (Fassin 2007). In doing so, I look at the tension between statistical narrative and public memory in calculating risks in life (Chapter IV Calculating Risk). While the public health discourses of risk are dominated by fear of contracting cholera/diarrhea, public perception of risk in Shatnal unfolds a complex ontology of inequality, differentiating and distributing value in life in a hierarchical manner (ibid, p. 519). Therefore, in the context of my research, the politics of risk is not about only producing governable risk, but also deciding the sort of risk for which the government should be accountable. I describe this mode of government as the humanitarianization of national health in Bangladesh.

[81] In *Life in Crisis* (2013), Peter Redfield coined the term "minimal biopolitics" to address the specific ethical commitment of Doctors without Border/MSF to save the humanity of the population in danger. In the felicitous use of this Foucaultian term, MSF fosters life in crisis by providing basic needs – supplying food, shelter, water and medicine.

CHAPTER III: SETTING UP CLINIC

"Averting Cholera Death"[82]

Figure 10 The Center in Shatnal is located in Sataki Bazaar, Shatnal.

In January 1964, there was an outbreak of cholera in greater Matlab. The death toll from the epidemic was higher in Shatnal (Baqui et al 1983). In less than a month, more than 35 people had died from cholera from the villages in Shatnal. The concentration of death in Shatnal prompted the Center to commission two anthropologists to the area to study cultural organization and attitude towards diseases that may have contributed to the rapid spread of the disease. In the

[82] This section is written consulting archival documents of the Center from 1962-1970. The title of this section is a widely used key word from the *Journal of Diarrheal Disease Research* – a publication of the Center. The exact keywords in the journal catalogue are: cholera death and death averted.

Directing Council's annual report, the Center's expectations from this anthropological study were clearly outlined: "to provide first hand observations of village life to give insight into the facts involved in the fecal-oral transmission of cholera; to help design a longterm study of cholera endemicity to observe the dynamics of other infections and to search for carriers or other location of cholera *vibrios* in the inter-epidemic period."[83] Presumably, the first step towards setting up a cholera clinic and "averting cholera deaths" in Shatnal was sending an ethnographic mission to the area.

The ethnographic mission was also equipped with a speed-boat ambulance to send cholera patients from Shatnal to the Center in Matlab. Two volunteers were recruited to accompany the patient in this journey and given a two weeks training to diagnose dehydration, administer oral intravenous fluid and use a limited number of essential drugs. It was a mobile treatment facility with very specific objectives: to administer the first intravenous fluid to prevent further dehydration and rapidly send the patient to Matlab. They were also supporting the anthropologists in their research. In 1968, the ethnographic mission ended. However, the treatment facility continued to provide care for cholera patients.

Patients from surrounding areas in Shatnal had to reach Sataki where the speed-boat ambulance is stationed. Since the distance between the two sites is long and the sites not easily accessible, patients often face serious delay. One of the two volunteers from the mobile clinic raised concerns about patients' condition significantly deteriorating from this delay. They also reported severely dehydrated patients dying on the road between Shatnal and Matlab. The volunteers arranged a community meeting with representatives from the ICDDRB to address this

[83] See, PAKISTAN-SEATO Cholera Research Laboratory, Fourth Meeting of the Directing Council, Dacca, East Pakistan, January 18-19, 1965. Retrieved from dspace.icddrb.org/dspace/items-by-subject?subject=Congresses

issue of death from delay.[84] In the meeting, everyone decided to establish a community-managed cholera treatment center in the area. For the clinic, one of the local landowning elites donated a piece of land. Originally, the anthropologists were living in this donated plot during their commission. A clinic with brick wall and tin roof was built on this land. The ICDDRB bore the initial cost of building the Clinic and community members promised to take care of the daily cost. On December 1, 1979, the clinic started its journey with four CHWs and two cleaners.

The Center in Shatnal was also a test case to see the possible efficacy of a community-oriented treatment facility with provisions for intravenous fluids in reducing mortality from cholera and acute diarrheal diseases. The first three years of its establishment, a team from the Center in Dhaka visited it every month, carefully reviewed its reports and attended monthly community meetings. At the end of this period of close monitoring, the Center in Sataki was declared effective and role model for the government to replicate in other sites of Bangladesh. However, the Center in Shatnal rose to prominence during the cholera epidemic of 1982. Dijen Sen, a young CHW, tirelessly worked three weeks at a stretch at the Center. According to the institutional account of the Center, "the health care providers at this Center averted approximately 820-1000 deaths" (Baqui et al 1984). Local newspaper, *Chandpur Barta* published a story on him. He featured on the front page of a government health bulletin. At the peak of the epidemic, the Bangladesh National Television (BTV) also made a feature on his work and he was seen explaining on camera,

> "There is no need to fear, if your child has cholera, just boil a liter of water, let it cool down. Then add a pinch of salt and handful of molasses. Do not panic, do not stop regular food. You could easily turn away *azrail*[85] when it comes to take the life of the cholera victims. Cholera is no news of death anymore."

[84] This meeting was held on November 7, 1979.

[85] In everyday vocabulary of Bangladeshi Muslims, *azrail* refers to the angel of death (malak-al-maut).

Dijen Sen's story of dedication, care and success expanded the meaning of cholera death. It contains fear, but it also conveys the promise of governmental care when suffering from a bout of cholera. In this chapter, I follow his life story as CHWs to show how this model of selective health care has unfolded in Shatnal.

Becoming a Community Health Worker

In recent history of cholera in Shatnal, the epidemic of 1964 was the deadliest. Among the dead were three family members of Dijen Sen including his father, Upendra Sen. The epidemic was a traumatic moment in his life and career as a CHW. He lived and relived the moment through the memory borrowed from his community, "only if I were older and working for the Center already!" He had saved many lives, yet he could not save the life of his own father. Holding tight to this past moment, he grew up to be like his father. His father was a "compounder."

Upendra Sen was working as a compounder with a community pharmacist in Munshiganj – a neighboring sub district. To understand Dijen Sen's journey and commitment, I will pause here to talk about the colonial history of community pharmacy practice in colonial India.[86] Towards the end of the nineteenth century allopathic drugs were introduced and made available through drug stores. At the time, the pharmacy vocation remained profit oriented and the practice was unregulated (Basak and Sathyanarayana 2009). The practice of prescribing and dispensing medicine places, it was often done by a compounder who had acquired diagnostic skills and learnt the art of making medicine (compounding of medicinal preparations) from being the assistant to a pharmacist. This legacy was carried over to intercolonial Pakistani regime to independent Bangladesh. Upendra Sen was a compounder who belonged to this history. His

[86] History of community pharmacy in colonial India is inadequate. Basak and Sathyanarayana (2009) briefly take up the issue in the following article, Basak, S. C., & Sathyanarayana, D. (2009). Community Pharmacy Practice in India: Past, Present and Future. *Southern Med Review*, *2*(1), 11–14.

brother Mahendra Kabiraj was a practitioner of *Ayurvedic* medicine. Dijen Sen's pursuit for a life in a health care profession was expected.

In 1972, Dijen Sen passed the school final exam from Sharifullah High School in Shatnal. He was the first student from the area to pass this exam. When the Center was looking for local volunteers to be stationed with the speed-boat ambulance, naturally his name was proposed. After training from the ICDDRB, he began to accompany cholera patients from Shatnal to Matlab. However, he left Shatnal for Munshiganj during the famine of 1974. He recalls this abrupt departure vividly,

> There was starvation everywhere. Nearly, everyone looked like severely dehydrated cholera victim. We had no food in our home for three days when my mother sent me to Gopal Daktar (a pharmacist in Munshiganj). She thought, I could earn a few *Taka* assisting him in his pharmacy. Even he did not have work. But, he fed me *mar* (rice water). I stayed with him for the next four years [1974-1978]. He took me as his apprentice. I learnt basic anatomy and pharmacology from him. In 1978, the *Upojila* Chairman (sub-district chairman) asked me to return to Shatnal to join the Center in Shatnal. It was the most difficult time in my life. Our monthly pay was tk. 200 [$5]. One of the CHWs from the Center, Ali left the work for Saudi Arabia. At the time lot of young men from the village were going there for better life. It worked for many, but not for Ali. He died at his construction job. Anyway, it was also the best time of my life. I was the first man from this district to be on television. No one even had television in Shatnal. We went to Chandpur to see the news. Now is a different time.

His story complicates the circulating glorified representation of CHWs life, labor and work in international and national development discourses. The role of CHWs, including their training, responsibilities and idealized identities has never been uniform. It fluctuates and evolves over time in response to national socio-economic and political processes (Nading 2013; Maupin 2015; Cooper 2015; Closser 2015; Maes et al 2015).[87] Dijen Sen's momentary visibility during the

[87] In recent time, anthropologists from their various ethnographic sites wrote against this idealized representation of CHWs and their work. In 2015, the *Annals of Anthropological Practice* put together a special issue on the topic titled, "Community Health Workers and Social Change: Global and Local Perspective." In this issue, drawing from her ethnographic work on the Global Polio Eradication Initiative, Svea Closser (2015) showed how international aid workers conceptualize the ground level work of Lady Health Workers (LHWs) as heroic, that eclipses the LHWs concerns and discourses around their livelihood. In the context of Ethiopia, drawing from their work with the Women's Development Army, Maes et al., (2015) describe the paradoxical realities in which they perform their

epidemic of 1982 granted him access to different training programs offered by the government and NGOs. He was again the only person recruited from the area for the Local Medical Faculty (LMF) and Village Doctor (VD) training programs. The VD program was depoliticized emulation of the Barefoot Doctors and Cooperative Medicine model from the Socialist China (White 1998). It was another form of minimal biopolitics promoted in the time of Cultural Revolution in China. The program was short lived in Bangladesh. In 1982, as part of a WHO supported primary health care project, the government trained 5,000 VD in Bangladesh (Mahmood et al 2010). It stripped off the program from its any revolutionary potentials and the component of Collective Medicine was set-aside.[88] The program perceived the VDs as entrepreneur. As the training manual titled *Jekhane Kono Daktar Nei* (Where there is No Doctors) suggests, the trained VDs were expected "to run pharmacies with government loans to start pharmacy business and serve the poor who does not have access to any health care."[89]

Alongside his work as CHW with the Center in Shatnal Dijen Sen continued to pursue his academic training in medicine and public health care. The LMF training was a yearlong; he would study while he was at work in the Center. He also participated in a month long veterinary training in Sylhet. As a health care provider in Shatnal, he cannot just treat cholera/diarrhea. He has to do *"variety chikitsha."* I will return to this question about *"variety chikisha"* later in the

duties. They are recruited to reduce the maternal mortality rate. The Army is supposed to simultaneously "empower" these women to be more autonomous from husbands and more active in development-oriented work. Yet one of the key criteria sought by district-level health officials when recruiting these army women in unpaid positions is their willingness to "accept what we [the government] teach them and implement what we [the government] tell them." It highlights that Army leaders are to remain subordinate to government health officials.

[88] For an interwoven history of the Barefoot Doctor and Primary Health Care model see, White, S. D. (1998). From "Barefoot Doctor" to "Village Doctor" in Tiger Springs village: A case study of Rural Health Care Transformations in Socialist China. *Human Organization, 57*(4), 480.

[89] See, Government of Bangladesh, Village Doctors Training Program Manual, "Jekhane Kono Dakatar Nei (Where there is No Doctor)," Dhaka, 1982.

chapter. He had received diverse training from the government; his only institutional affiliation is with the ICDDRB. My time and work with all the four CHWs of the Center in Shatnal reveal that their relationship with the ICDDRB is fraught, but fundamentally collaborative. In contrast, they view local government as negligent, and apathetic towards the public at large. Even though the ICDDRB's involvement in the area is limited, its name and logo gave the CHWs some authority and symbolic capital to earn their own living, as well as provide health care to the people in Shatnal.

Providing Care

Time is different now. There are barely any cholera/diarrhea patients in the Center in Shatnal. The last recorded epidemic was in 1992 when a new strain of *Vibrio cholera* was identified. It was later named after the region as *Bengal.*[90] The Center had to make space for sudden unexpected flood of patients. They even made beds for patients on the floor. On the corner of the shaded verandah, they had an ice box to store sample of rectal swab. At the end of the day, a staff from the Center in Matlab will come with medical supplies and collect samples. The medical officers from the Center in Matlab would also pay weekly visits. Even foreigners paid visits during the last epidemic. According to the staff member of the Center in Shatnal, it has been pretty dull since then.

Sometimes a week goes by without any patients. There are more patients in August, September when the flood water subsides. Still not enough to keep the staff busy in the Center.

[90] In December 1992, cholera-like epidemic broke out in southern Bangladesh and then spread throughout the country. By the end of March, 107,297 cases of diarrhoea and 1,473 deaths were reported in Bangladesh and West Bengal, India. According to the scientists from the Center, the disease was indistinguishable from cholera in its clinical features. Most of the cases were in adults, which suggest that the population had no previous immunological experience of the organism. At two centers 375 (40%) of 938 and 236 (48%) of 492 rectal swabs were positive for *V cholerae non-01*. The strain did not resemble any of 138 known *V cholerae sero* groups. A new serogroup 0139 was identified by the Center and it suggested the name Bengal for the strain. See, Cholera Working Panel.1993. Large Epidemic of Cholera-like disease in Bangladesh Caused by *Vibrio cholerae 0139 Bengal*. The Lancet. Volume 342. August 14, 1993. p.387-390.

Ayesha, an *ayah* (cleaner) brings her household chores with her when she comes to work. In the backyard of the Center, she spreads her old *sari* to stitch her *kantha* (quilt). Sometimes she brings her chili pepper to dry here. Shona, the other cleaner does most of her *moshla bata* (manually grinding spices) here. The front door of the Center is open all day. At night, the door is closed but a light is always turned on. Ironically, most nights Shatnal has a power-outage.

Dijen Das, Faruk Hossain, Pubali Sen, Sohrab Ahmed – all four existing CHWs have other work involvements. Hosain is a school teacher; he does the night shift at the Center. Sohrab Ahmed and Dijen Das, they both have pharmacy practices. Pubali Sen does embroidery work for *Arong* – a social enterprise of Bangladesh Rural Advancement Committee (BRAC). They all bring their other work along – embroidery, accounting work of the pharmacy, drying chili or grinding spices. When a patient arrives, they take a moment from their other work to provide care.

Mostly it is the young mother with her infant child who visits the Center in Shatnal. A maternal or paternal grandmother accompanies them. A male member of the family only comes along if they are coming from a distant place – a distance that women are not expected to cross alone. Neither the patient, nor the CHWs prefer overnight admission. Dijen Sen is an exception in this regard. He would insist and explain the risk of bringing dehydrating child back home. His exceptional integrity and commitment for his job that barely pays him anything earned him a lot of respect in the area. Several times in the past years, his name was proposed for Union Parishad membership election. He refused, "I can serve people from doing what I do best. The government will eat me from inside out."

Every day, at the Center in Shatnal, I too bring my work with me. When the *ayahs* are taking afternoon nap, I organize my ethnographic notes. In Bazaar days (Saturday and

Thursday), I am assigned "bathroom duties." Farmers coming from distant places to sell their produce use the bathroom. I have to make sure no one is taking anything from the Center, even though there is barely anything of value here. In those busy Bazaar days, talking to people who use the bathroom, I have realized, no one in the area refers to the Center as it is written on the gate of it, "Shatnal Diarrhea Cure Center." People mostly call it either Cholera Clinic or Cholera Hospital.

The Center in Shatnal resembles no clinic that Michel Foucault described in *The Birth of Clinic* (2001 [1963]). Neither does it bore similarity with the community clinics for intravenous drug users in Vancouver that Cindy Patton illustrates in her edited volume *Rebirth of the Clinic* (2010). The dissimilarity is expected, yet there must be something that prompted public imagination to identify the place as clinic. In 1979, the Center in Shatnal was more of a clinical space than it is today. At that time, it came with a medico-scientific gaze to locate cholera in body and space. Today, not only the knowledge about cholera, its cure and prevention is scientifically revealed, but also entered the realm of common knowledge. The gaze is now turned futuristic and anticipatory (Mahajan 2008). According to Dijen Sen, the purpose of the Center in Shatnal is now more to maintain a longitudinal cholera/diarrheal surveillance system than provide care. It allows the ICDDRB to detect an impending epidemic promptly, anticipate patterns of risk, and inform the government. In the way of providing care, it builds anticipatory knowledge about cholera/diarrhea.

The Center in Shatnal plays another anticipatory function that marks it in the eyes of the people as a clinic. I have asked many times of the community members of the Board of this Center, "Have you ever thought about merging the Center with the Thana Health Complex since

its use has changed?" Their answer is always in negative. I asked the same to Dijen Sen, his response was similar,

> Although, a merger with the Thana Health Complex would mean that we will be government employee. At least, we would have retirement benefits. That would also mean we will lose our tie with the ICDDRB. No meaningful change in the health system would ever come from that. The Center stands as a promise of better health care, even though nothing has changed in the past decades. Turning it to something else would mean taking the little care people had here away from them. The government only promises *tika* (immunization), condom or ORS. An extensive health care could come from the ICDDRB, if they think it is needed. Meanwhile, I do what I have to do.

In Dijen Sen's reflection, the Center stands as a promise of better biomedical, health care infrastructure for people. The cracks and scratches on the plaster wall paint a situation of stagnation. Taken together, they tell a story about anticipatory biopolitics in Shatnal – a promise of governmental care allows it to govern and exist. A transformation towards better health care is expected to happen, yet it has never happened. Instead, this phase of waiting for a change is sedimented in Shatnal.

Making Life Bearable

Dijen Sen owns two pharmacies. The one in Shatnal is located close to the Center. The other one is in Kalipur Bazaar. He practices there on every alternate day and lives in the border of Kalipur and Sataki village in Shatnal. His other pharmacy is in Kalipur (Figure 9). On Bazaar days, he attends between 50-70 patients. There is an arrangement between Dijen Sen and the ayahs. He would be in his pharmacy, if there is any patient at the Center, she would call him. During my stay in Shatnal, it was my responsibility to call him, while Ayesha and Shona talked to the cholera patient and his/her accompanying relative.

In the afternoon, I would work with him as his assistant at the pharmacy. I offered to help him with a patient register. He denied,

> "The patient register is in my memory. Everyone in Sataki (a village in Shatnal) is my neighbor. I have been practicing here now for 35 years now. I know them. I keep enough record at the Center. Here, I don't need records."

Instead, he asked me to help him with a medicine register. The world of local pharmacy was completely unfamiliar to me. I did not really understand what he was expecting me to do. I would sit next to him at the pharmacy and write down the name of the medicine and name of the patient. Few weeks later, he gave me a *jabda khata (*red notebook). I opened it; he had already drawn a table with red pen for me in it. It had three columns titled: *azaira* (unnecessary) medicine, *chumbok* (magnetic) medicine, and name of pharmaceutical company. From that day, my role in his practice was more collaborative. He would attend the patients, give them medicine. Unless, he was writing a referral to a private hospital in Narayanganj, he would not write a prescription. I would write down the name of the medicine in the category he instructed me to. This is a measure to deal with the manipulative "commission *khor"*[91] medical representatives who try to sell any and every medicine to the local pharmacies.

In this registry, Dijen Sen classifies medicines in two categories: medicines with "magnetic capacity to cure" and medicine that are ineffective. Our medicine register-making eventually became an effective strategy to resist crude commodification of health (Whyte et al., 2002). Every week, when the medical representatives came to check on the stock, he would refer to me. I would give him the list of *chumbok* medicine. This strategy to avoid stocking *azaira* medicine only worked for few weeks. Then the medical representatives started to harass him by sending *madrasha* students to his pharmacy to preach him to convert to Islam. The audacity of the medical representatives and their despicable communal strategy to wear him down was

[91] Locally, the sales persons of pharmaceutical companies are known as medical representatives. Their salary is dependent on their sale. They get a percentage from their sale. To raise their commission status, they often try to sell low-quality, unnecessary drugs. These pushy sales persons are often called as "commsion *khor* (blindly addicted to commission)."

burdensome; however, I was not sure, how best to act in this situation. A few weeks later, when the medical representative came, he asked me to leave the pharmacy for a moment. When I returned, he told me, "I asked the rascal that he should have never send those kids to my pharmacy. He will protect his business and I will protect mine. He could have just talked with me. We talked."

We continued to maintain the medicine registry. He asked me to add another column: people's preference. Sometimes, people only came for a specific medicine. In those cases, he asked me to write down the name of the medicine with a note on the use of the medicine. Now, I am allowed to talk to the patient. He would later refer to this column to see, if the patient has a history of preferred medicine. A unique process of diagnosis began to emerge in front of me which included patient as well. One day, I asked him about this process,

> "I try to diagnose the level of dehydration at the Center. Here I try to understand what is the patient's situation? Then, I try comfort him or her in that situation. Diagnosis is a business that the private hospitals and clinics are for. I can only try to ease things for the day. Most of my patients are children with respiratory diseases, I would say 70%. Then, I have pregnant women. Then I have really elderly men with blood pressure and other old-age complications. I have farmers with serious bodily pain, back pain. These are *doinondin jor-jari* (everyday illness), not really disease. Why do you think, I have veterinary medicine in this pharmacy? You cannot treat a woman without treating her poultry chicken? I have medicine for common diseases for cows and poultry chicken. Remember, I had that veterinary training in Sylhet. Some would say, I make money without treating the real cause. May be. What is cure without comfort in everyday life? Tell me? Remember, I had that argument with Choton *majhi* (boatman Choton), he insisted that I give him a pethidine shot. Poor man rows boat every day for life for as long as I know him. From degeneration, he had severe pain in his neck. As a physician, I cannot inject the drug every so often, but a dose would ease his pain. He would go to work more comfortably.

The set of distinction in his vision of care refers to an ontologically entangled experience of pain, suffering, illness and comfort: diagnose and understand situation; disease and illness; cure and comfort; human and cattle. In *Reports from a Wild Country* (2004), Deborah Bird Rose, describing the world of an Aboriginal community in Australia, referred to similar entangled

situation as a counter modern moment. I hesitate to engage with this all-encompassing concept to remain close to the micro-context of Shatnal. When the non-state actors with their globally defined ambitions govern the acts of the government, Dijen Sen draws on the vernacular understanding of wellbeing as oppose to the one dimensional public health discourses of "quality or life" or "good health." In the face of inequitable distribution of public health attention and reluctance to acknowledge new moment in the history of cholera, he draws a line between ethics of care and ethics of comfort. In his ethics of comfort, a form of life persists in his ethics of comfort through language and practice that provides care and comfort in this time of dispossession and pervasive inequality (Das 2006).

Interjection: No One Died, but She died, March 2012

Dhaka city's glitter makes it difficult to believe that there could be such a place only a few hours away. No road connects it to the capital city. I got on a small local launch from Narayanganj ghat. I was on my way to Shatnal, Matlab. Water is still deep grey, but it looks much cleaner once you leave the *ghat*. Floating purple *Kochuripana* (hyacinth flower) on Meghna was a silent reminder of the recent tragedy – the capsizing of MV Shariatpur-1. By official count, 149 lives lost.

A few passengers murmured, Allah took his dear ones back, what is there to say. The *jhalmuriwala* (spicy-puffed rice seller) on the launch retorted, "Yes, poor people are always Allah's beloved ones. We die first." A passenger who had been present at the site joked about the incompetence of the rescue team. When others joined in, the talk turned to debating over the compensation sum being offered by the government to grieving families. As anger, frustration and grief poured out, I sat and thought about how easily the everyday tragedies of common people slide away from the collective memory of Dhaka's ruling elite.

At the launch *ghat*, I was waiting for my journalist friend, Rintu. He called to say that he was stuck at his studio with some last minute work and asked me to wait for him at his uncle's tea-stall. As I sipped tea, I looked around. A few tea-stalls, a rickshaw maintenance shop. Everything around me, and further off, as far as my eyes could see, bore the mark of negligence.

The only means of transport was riding on the back of a motor-bike; you could get a CNG only if you were very lucky, I was told. While sitting on the backseat, I expected to fall down at every next turn. The path was muddy, bumpy, it felt like we were on a snake-trail. The Union Parishad building stood ahead of us, an anomaly in its surroundings. Rintu joked, "All elected officials are interested in construction work. That is where the money is!"

In about an hour and a half, we were in front of the Shatnal Thana Health complex. The building was large and imposing but most of its rooms were locked. The men's ward was locked, as was the pathology center. The children's ward as well. I looked around, other rooms too, had big locks on them. Rintu had been right, you didn't need a functioning hospital. You needed a big building instead, to make money.

As we were leaving the complex for our next destination, a CNG hurriedly drove up. I glimpsed a woman's face; she was probably in her mid-twenties. Her eyes were closed. She was foaming at the mouth. She didn't seem conscious. Two women and a man accompanied her. We learnt that they were her in-laws; their look of unconcern and annoyance struck me. They wouldn't say anything about what had happened, why she was ill. It was the CNG-wala who told us, her brother-in-law had beaten her this morning. Everything seemed to move very slowly, the hospital guard looking for the nurse, the nurse for the doctor. The CNGwalla, Rintu and I couldn't take the lethargic pace any longer. We got her out of the CNG. She felt cold and heavy as we laid her on the emergency table. A doctor, nurse, oxygen, pulse, pressure. Words flew

around me. The duty doctor began shouting at her in-laws. The nurses asked, what did he beat her with? Surprisingly, there were no marks on her body.

We soon knew it was too late. Suddenly, there was a lot of movement now. “Death always brings motion in life,” Rintu quietly announces. Screams were coming in from all direction, “call the police?”

“Contact her family?”

“Who is going to take the body?”

“Wait for the police. Don't move the body from here”

“No, no, call the Chairman.”

“Shob shala banychot (all are fuckers),” Rintu screamed back from his gut and dragged me out of there. I hadn't even learnt her name.

Two days later, I went back to the Health Complex. With a deadpan face, they told me, they have no record of her death. I went to the local police. They were oddly courteous. They too were not sure of a death from two days ago. Someone recalled getting the note, but he passed it to some other officer. That some other officer is not here today.

Traces being 'deleted' by a nexus of local power elites -- the in-laws’ family connections, her own family's will to justice being battered down, or being forced to come to a 'settlement,' the Union Parishad, the health complex authorities, the local police station, the general indifference of local NGOs in such cases. Who knows?

At the end of the day, I finally arrived at her paternal household. She was buried in their family land. Her family arranged a lunch for those who had helped with her burial. That is the custom. A faint voice of *Q'uran khatam*[92] coming from the house finally confirmed her death.

[92] Recitation of Quran in memory of the deceased family members of a Muslim household.

CHAPTER IV CALCULATING RISK FOR ALL

Living with *Jhunki* (Risk)

Figure 11 Reading glasses, sandals, woman's purse, a key-chain – living objects with stories untold scattered here and there inside the recovered launch. MV Sharosh, a Matlab bound launch with around hundred passengers on board, capsized in the Meghna near Munshiganj (8 February, 2013). Official sources report 18 people dead and 4 missing. All deceased are from Matlab area.

The history of endemic cholera/diarrhea does not have the same significance in the public memory as it does in the institutional memory of the Center. In contemporary Shatnal, the reality of suffering a bout of diarrhea is not the main source of public anxiety. People in Shatnal carry with them an unspoken shared worry. They are never without it. The possibility of death from a river accident follows them. Every woman in Shatnal, as the local saying suggests, breathes a

sigh of anxiety when her man leaves for work. Looking beyond the gendered nature of the expression, I could identify how local perceptions of health risk differ from epidemiological understandings of it.[93] Reading the vernacular, varied use of the term *jhunki* (risk) with public health discourses on risk prompted me to acknowledge the ontological multiplicity of risk, and the ways these community, governmental and epidemiological enactments of risk are variously entangled and informed by one another (Mol 2002; Cohn et al. 2013; Vigh and Sausdal 2014). Stories of these routine deaths from launch capsizing are a crucial piece of this risk assemblage.

During the span of my fieldwork in Shatnal, three major launch disasters took lives of 200 people, most of whom were from greater Matlab. Within weeks of my stay in Shatnal, a two level storied launch, the M V Shariatpur 1, collided with a cargo ship and sank in the Meghna river. Approximately two thousand people have been killed in maritime disasters in the Meghna river in the past decade.[94] On April 4, 2002, a Bhola-bound launch from Narayanganj capsized near Shatnal. Many victims of this catastrophe were anonymously buried in a mass unmarked grave by the Shatnal Tourism Center. In the dry season, local children play cricket there. However, the silent, unmarked presence of the site left a deep scar in the community. Living in such proximity to death means that for most people in Shatnal, death is not beyond life; rather,

[93] As I began to travel regularly from Dhaka to Shatnal, Matlab for my dissertation field work, the public anxiety of sudden death from road or river accident was slowly rubbing off on me. The road that connects Dhaka with Matlab is Chittagong road and a part of which is popularly known as deathtrap. Statistically speaking, the highest number of accidents took place here. The possibility of meeting an accident seems so real and close that I asked a friend and mentor not to put me on a life support machine. In an overtly commercialized medical care for the middle class, private clinics often insist on prolonging the life of a patient in vegetative state. Unlike the situation described in Margaret Locke's classic ethnographic work, *Twice Dead* (2001), the decision to maintain life through life support technology is largely dominated by commercially motivated physicians in Bangladesh. See, Lock, M. M. (2002). *Twice Dead: Organ Transplants and the Reinvention of Death*. Berkeley: University of California Press.

[94] See, Chandpure 12 bochorer launchdubir itihash. Baroti launchdubite dui shosradhik loker pranhani (Twelve years' history of launch capsize in Chandpur. In 12 incidents approximately 2000 people killed). (2013, February 19). *Chandpur News*. Retrieved from http://www.chandpurnews.com/?p=2197

death is inscribed in life, and it accompanies life in the form of risk (Ewald 1993).[95] In this chapter, I illustrate how these varied understandings of death, life and risk disrupt the notion of life as perceived by the Center when calculating health risk. In other words, this local insistence on risk assemblages put epidemiological terminologies -- e.g. life chances, life expectancy, quality of life deployed in health risk measurement process to the test. More importantly, I document a narrative of living with *jhunki (*risk) that recalibrates the threat of illness from infectious diseases as only one of many possible risks shaping the everyday life of people in Shatnal.

In my earlier ethnographic work on the politics of cholera research by ICDDRB in Bangladesh, I described prevailing public ambivalence towards health risk and disease prevention discourses. I pointed out that the idea of risk*/jhunki* only gained certain significance through cholera prevention programs and the expansion of epidemiology as a discipline in Bangladesh further contributed to this process. From the standpoint of governmental accounts, I argued that notions of risk are made intelligible as specific epidemiological representations that render endemic cholera amenable to certain types of interventions. (Kamal 2007). However, my ethnographic experience in Shatnal compelled me to expand the scope of the research to include forms of risk that remain outside the domain of the governance. Health practitioners in Shatnal insisted that not all health/life risks mattered. I draw from Didier Fassin (2007, 2009) and Judith Butler (2004) to understand this "hidden horizon of death," risk, and life.

[95] In his essay, "Two Infinities of Risk," Francois Ewald (1993) described similar vision of death when describing the growing influence of insurance technology and millennial anxiety in late modernity. See Ewald, F (1993). Two Infinities of Risk. In Brian Massumi (Ed.). *The Politics of everyday fear (221-228)*. Minneapolis: University of Minnesota Press.

Admittedly, deaths from launch capsize and child mortality from the "hidden" or "silent" epidemic of drowning do not interrupt the narrative of health risk from cholera/diarrhea.[96] Government and international aid investment in public health for decades remained dominated by infectious disease prevention programs. Taking into account these different forms of epidemics, silent/hidden, I recognized a larger question that emerges: what tangible and intangible shape and form of risk discourses emerge when fear of cholera/diarrhea is not as palpable as it was in 1963?

Before turning to the discussion, I examine the work of the Center to illustrate its historical role in calculating and normalizing health risk from infectious diseases, particularly from cholera, by investigating how anthropological knowledge has created social categories of risk as a tool to define the normative concerns of health. The movement of anthropologists from the US to Shatnal altered the meaning of *jhunki* and redefined local practices as "learned behaviors" that contribute to the transmission of cholera (Pigg 2005). The process of cultural translation intervened in the local social ecology, interrupting how people thought about health, disease and death (Asad 1986). In the following section, I describe this anthropological moment of cultural translation of a "rural-traditional Bangladesh" that held the discourses of risk together. In doing so, I restrict my analysis to three anthropological texts on Matlab/Shatnal produced in the first decade (1964-1975) of the Laboratory.

These texts are hidden in the publicly-accessible digital archive of the Center. I learned of these texts through passing remarks by public health activists or community health workers. It

[96] On December 5, 2010 quoting public health researchers from International Centre for Drowning Research (IDRC), Centre for Injury Prevention and Research, Bangladesh (CIPRB) and Royal Live Savings, *The Daily Star* reported drowning as a "silent epidemic" in Bangladesh. According to the news report, the leading cause of deaths of children aged is drowning and more than 18,000 children, mostly 1-4 years of age, die each year from drowning in Bangladesh. See, Death from drowning turn into 'silent epidemic.' (2010, December 5). *The Daily Star.* Retrieved from http://www.thedailystar.net/news-detail-164832.

is through their remarks that I was not only introduced to these ethnographic accounts of Shatnal, but also become aware of different public orientations to anthropology. On the one hand, a prominent public health activist criticized these early American embedded anthropologists for lending their skills and voice to a military establishment like the Laboratory. On the other hand, a community health worker who gained social visibility through her work with the Center shared her experience of working with an anthropologist from the United States. Their citations of these texts brought me to the doorsteps of four anthropologists. In conversation with these anthropologists, I gained a historical awareness of our shared ethnographic field site, and collectively looked at these ethnographic accounts as objects of our own disciplinary production. In the process, I came to recognize the centrality of "cultural translation" in their work as part of the Laboratory. In the following section, I look at this anthropological narrative to show how they have created subjects of public health interventions. Along the same line, I also interrogate the role of anthropologists in reinforcing the unequal relationships between local and global actors necessary to the hegemonic mission of the Center.

Inventing the "at Risk group"

Matlab is probably the only town in Bangladesh where anthropology is a familiar science. Members of local educated middle class often enthusiastically discuss different anthropological problems that I should look into. In one of these discussions, Debjani Das recollects her experience of data collection with an anthropologist as "a lot of fun. It was not just about stool color and crunching numbers. We asked real questions. I learned about symbolism." The participants of these anthropological studies remember differently.

"They [foreigners] always asked a lot of questions about hand-washing. Did you wash your hands after defecation? Did you wash your hands after cleaning your children? This and

that, *altu-faltu kotha* (silly questions)," says a woman who had been a regular participant of many surveys conducted by the Center. Her remarks illustrate how an ordinary, mundane everyday act of hand-washing rose above its occasion; it became an object of inquiry through interaction between epidemiologists, anthropologists and other medical professionals.

In this analytical engagement with the anthropological literature, I do not deny the epidemiological fact that certain hand-washing practices contributed to the transmission of cholera vibrio. I am interested in the ascription of culture to these facts, the manner in which they are understood to reflect on cultural, rather than political and economic norms (Briggs and Briggs 2002). By culturalizing facts, these anthropological accounts turn local economic activities, every day practices into domains of government intervention (Osborne 1997; Peterson 1997). The epidemiological production and culturalization of fact is a more complex, historically situated process. In my discussion, here I pair them together as momentarily stable categories to understand the governmental rationality of demographic categories. Simply put, anthropological attention brought a governmental gaze with it to manage and control risky behavior. In this manner, research recast local life into a script about disease prevention, and thus effectively recreated an administratively recognizable group at risk of transmitting cholera, one that echoed earlier categories of the British Colonial Census:

Text 1: The role of boatmen (1967)

> The boatmen live on the boat leaving their families behind in the villages. In monsoon, there is boat parking at every point of the water margin. On market days, boatmen visit the market. The evidence from epidemiological study suggests that the canal was repeatedly inoculated by the visiting boatmen who were either mild or severe cases. They do not like hospitalization as their boat mates might leave the place since they do not like to wait for one man. From the canal infection was picked up by the local residents and virgin boatmen. These boatmen undoubtedly again carried the infection to distant parts where they visit in the course of their movement.

The remainder of this text provides the reader with the empirical details of the lives of boatmen from rural Bangladesh as the carrier of *Vibrio cholera*; they find implicit meaning in routine economic behavior. In 1960s, the silent migration of the Hindu population (primarily made up of fishermen) from greater Matlab, to India was slow. Men from this community would travel locally and across the region for fishing. They would travel in a group and normally do not like to be left behind even if it was for hospitalization. In the localized everyday social encounters, boatmen's reluctance to be hospitalized is not inherently read as aversion to the hospitalization. However, in the gaze of public health institutions the boatmen gained particular visibility, emerged as a "target group/at risk group." This tendency to read the implicit and attribute a meaning to a practice regardless of whether the meaning is acknowledged by its agent is characteristic of what Talal Asad (1983, 1986) has called the anthropological project of cultural translation.

The construction of boatmen as a carrier of cholera presented them to the scientific community as suitable experimental subjects. In 1968, the Laboratory in Matlab conducted an anti-cholera vaccine trial and the boatmen from Matlab were part of the trial population. Ethnographically identifying the role of boatmen in the transmission of *V. cholerae*, anthropological text invented a demographic category, and isolated a group as "risky."

Text 2: Learned behavior factors (1974)

> Learned behavior preserves the experience of social structure. For an understanding of the social structure, the goal of particular society must be identified. The pattern of learned behavior is determined by society. In an effort to isolate the learned behavior factors (toilet practices, feeding practices, and bathing practices) in the transmission of cholera information of social and hygiene customs needs to be recorded. Social division of labor in both Hindu and Muslim villages are alike. In both communities, women are responsible for cleaning their children after defecation. After cleaning others with water following defecation, both the mother and the children do not remain conscious of adequate hand washing. Their hand-washing practices are improper and unhygienic.

Learned behavior preserves the experience of social structure, irrespective of the geo-historical location of the society. However, in early anthropological imagination "learned behavior" is only found in "most traditional societies" (Pigg 1992, 1997).

Reading this account of two anthropologists "isolating" learned behavior, I realized an exercise of cultural translation also involves defamiliarizing the familiar. It represents the people of Shatnal as a temporally-distanced group. This distancing takes at least two facts out of the equation that contributes to the transmission of cholera: firstly, ecological factors contributing to the persistent history of cholera in the region; and secondly, structural questions of access to water sources or affordability of a sanitary latrines. The omission of these concerns isolates "culture" in a "traditional" space and time. This distancing rhetoric of ethnographic discourse, as argued by Johannes Fabian (2014 [1983]), "demotes its ethnographic objects through temporal relegation." In the context of public health, this hierarchically distancing localization places anthropologists in a privileged time frame, while subjecting the bearer of "learned behavior" to a stage of lesser development awaiting intervention (Bunzl 2014, ix). In other words, the focus on the learned behavior allows for the expansion of "groups at risk" of contracting cholera to include men, women and children -- essentially everyone from rural Shatnal.

Text 3: Religious belief (1970)

> Various dichotomies, both symbolic and real are associated with the basic distinction between the sexes and religious groups in the communities in Matlab. The symbolic shorthand of the right-left, two-one categorization in effect describes the political, social and religious realities of village life. To illustrate better the problem of elimination of cholera, examine the following family living habits and the preference of the right hand. The majority of the people are taught that they must never touch anything filthy (and this includes the genitals and anus) with the right hand. Their religious Islamic belief informs this preference of the right hand. Instead, after defecation and urination he must cleanse his crotch and his organs by bathing with only his left hand – leaving his right hand out of the operation. Unintentionally, the left hand will sooner or later make contact with the right hand. At meal times, the food is served in common container and the family members eat from it with their right hands, thus increase the chance of transmission.

The above text (text 3) is not part of an academic publication; it was part of the annual progress report of the Laboratory. I could trace the symbolism Debajani Das referred to and the work of structural anthropology in culturalizing the cholera epidemic. The majority of people in Bangladesh as well as elsewhere are taught "that they must never touch anything filthy." Exactly forty-five years after the production of the text, we are sitting at the author's office, who is now an anthropology professor at a prominent university in the US.[97] When reading this text together, in retrospect, the author was perplexed by the relative simplicity and universality of the fact about avoiding filth. The particular religious cleaning practice, the *oju*, does not ask one to refrain from bringing the right in contact with the left hand. The question of "preconceived notion" has become a cliché in anthropology, but still I asked, "Would it be possible that a preconceived notion of culture and otherness influenced your interpretation?"

The author took time to respond. Prodding at a distant memory s/he seeks to share the burden of another time with his/her colleagues from other disciplinary backgrounds (Ricoeur 2004).[98] The author then recounted:

> I was not particularly interested in South Asia. My partner had an appointment with the Pakistan SEATO Cholera Research Laboratory. Our marriage did not last long, with it my tie with the field also faded. I was an adventurous young scholar. It was a fascinating place for me. I would not say, "preconceived notion." As you can tell from the reference cited, I was deeply invested in symbolic classificatory system. You know, you will be mistaken, if you read this as a purely anthropological text or an ethnographic account. *I would not carry the ideological burden of the text alone.* From collecting data to writing it, there were others involved, scientists, epidemiologist, bacteriologist...there was a local bacteriologist, he was a jolly guy. Have you spoken with him? He will be a very good

[97] In order to maintain the anonymity of the anthropologist in question, I have used a third person narrative here.

[98] At the conclusion of *Memory, History, Forgetting* (2004), Paul Ricoeur completes his phenomenological analysis of memory with an epilogue on forgiveness. He considers forgiveness in "the tone of an eschatology of the representation of the past" (p. 57-8). For him forgiveness hovers as a kind of promise over human being, floating amorphously like a dream over the world of time. I read the author's journey through memory to unburdening anthropology from its past with Ricoeur's 'spirit of forgiveness.' See, Ricœur, P. (2004). *Memory, history, forgetting*. Chicago: University of Chicago Press.

> resource for your research. Anyway, I wanted to say, this research was controlled and tinkered. It was not work of an individual anthropologist, the work and the ethnography was a fruit of a scientific collaboration between medical practitioners, epidemiologists, bacteriologists.

My conversation with the author ended abruptly. The use of the term "tinkering" in his/her critique of my reading remained with me.[99]

The other three authors of these texts (text 1 and 2) in their re-narration retained the original ethnographic rhetoric. They talked about another form of translational work in which they "isolate learned behavior," create demographic categories; assign labels to the "at-risk group" to help design effective cholera prevention programs. The stabilization of the social category of "at-risk group" relies on exchanges and collaboration between hierarchically-situated heterogeneous translators (Star 1991).[100] It depends not only on how translators engage with one another but also how they mobilize biological properties. To calculate the role of boatmen in the transmission of cholera, more than 30,000 rectal swabs were obtained and cultured. Bringing certain words, actions and matters into circulation generates a particular awareness about the health risk among the people of Shatnal. In the following section, I will explore how people bound together in this invented category enter spaces of government and act on this awareness – how they instrumentalize these new measures of health, illness and life at large.

---

[99] As a student of science studies, I am familiar with the term - *tinkering*. However, I do not think s/he is concerned about the underestimation of the role of material world in the production of scientific knowledge. The author's emphasis is on the collaborative nature of the research work to distribute the burden of ethical liability among the group.

[100] Examining the actor network model of Latour (1983) and Callon (1986), Susan Leigh Star's (1991) explored alternative models. Drawing on feminist theory, she emphasized heterogeneity and multiple memberships in its relationship to marginality. She argued people inhabit many different domains and occupy heterogeneous identities in the process of standardizing facts while "a set of uncertainties are translated into certainties: old identities discarded and the focus of world narrowed into a set of facts (p. 47)." Here, I have followed her point of departure when referring to a hierarchical actor network. Star, S. (1991). Power, Technology and the Phenomenology of Conventions. On Being Allergic to Onions. In John Law (Ed.), *A Sociology of Monsters. Essays on Power, Technology and Dominiation* (26-55). London and New York: Routledge.

Talking Risk, Talking *Jhunki*

In Shatnal, the Bangla word for risk, *jhunki,* appears only on the walls of public health centers; the English word is used when community health workers speak, for example, of high-risk pregnancy or risk of unhealthy sanitation habits. On rare occasions, the family planning worker will talk about the side effects and risks of a particular contraceptive method. In the local linguistic imaginary, the English word risk is an effective medium of communication only when used in the context of public health. Normally, the Bangla world will be repeated after the English since in jhunki is more a formal word and is not used in everyday communication. The Bangla and English terms, risk and *jhunki*, interact with one another to effectively communicate the health information as the following example makes evident:

> "Moderate dehydration," the community health worker declares to me. Then he turns to the mother of the child: *"Rater bela hothat paykhana bere gele jhunkipurno, mane risk ache? Bhorti kore nen, genda akhon bhalo ase, kintu kharap hoite kotokkhon? Jhunki, mane risk er kaj nai* (it will be risky *jhunkipurno*, if his condition deteriorates at night, I mean there is risk. Admit Genda, he is doing well now, but it could take a turn for the worse very quickly. There is no point taking *jhunki*, I mean risk).

In these moments of reverse translation, I have always paused. This unusual occurrence when a Bangla word gains new currency through circulation of the English word was intriguing for me.[101] I began to document the centrality of "risk communication" in the everyday life of community health workers in Shatnal:

> "Apa, you forgot to bring Ayesha to the Shashthya Complex for her next dose. Next week is immunization week. We will be there at Sataki Bazaar. Don't forget. *Risk neben na kintu* (Don't take risk)."

[101] For cultural historian Peter Burke (2007), this moment of reverse translation proves his point that "the activity of translation necessarily involves both decontextualizing and recontextualizing, whether translators follow the strategy of domestication or that of foreignizing, whether they understand or misunderstand the text they are turning into another language." For Bruno Latour (1991), this is moment reinforces his insistence that translation chains do not simply follow a principles of expansion into a vacuum. See, Peter Burke, "Cultures of translation in early modern Europe" in Peter Burke and R. Po-Chia Hsia (eds.), *Cultural Translation in Early Modern Europe,* Cambridge; Cambridge University Press, 2007.

> "Hay! Allah! You have installed the latrine in your kitchen. Hay! Allah! *Korsen ki eta apne* (What have you done)*?* It's too risky. In fact, it's beyond risk. *Rog-jibanu* (germs) could spread and contract so easily."

What is important in this mangled translation of risk is that notions of risk are made intelligible as specific risk screenings that render disease and illness in such a form as to make it amenable to types of actions and interventions. Community health workers communicate risk to link it to a set of preventive measures, to projects of prevention. They set an outline of practices for healthy, productive citizens:

> "Wash your hands after defecation, prevent diarrhea"
>
> "Drink tube-well water, prevent diarrhea"
>
> "Immunize your children, prevent child mortality"

In other words, translating risk incorporates a calculative rationality into the local public health bureaucracy that is tethered to the management and shaping of the conduct of the at risk population (Dean 2000). It is an inkling of the ideological shift away from the notion that the state should protect the health of individuals, as evident in the accounts of governmentality scholars, to the idea that individuals should take responsibility to protect themselves from risk (Armstrong 1983; Peterson 1997; Turner 1997; Osborne 1997).[102] In the micro context of Shatnal, I characterize this shift as a glimmer of the anticipated transformation in statecraft. In the words of community health or family planning workers (of the Center or the Shasthya Complex), through these risk communications, the state acquires a voice, makes visible that which was/is otherwise abstract or invisible. It brought the state-machinery to a tangible distance – a space of interaction among the state, nonstate actors like the Center in Shatnal and the

[102] My analysis is particularly indebted to Thomas Osborne's theorization of health and statecraft. See, Thomas Osborne, "Health and Statecraft," in Alan Peterson and Robin Bunton (eds.), *Foucault, Health and Medicine* (173-188)*,* London: Routledge, 1997.

beneficiaries/subjects of public health programs. However, in order to exert disciplinary power over its subjects, to relegate responsibility from the state to the individual, the state must be in tangible and intangible distance at the same time. When the local face of state authority is the community health worker, s/he must bear the responsibility of protecting her "beneficiary/her neighbor." Often the relationship is one of mutual obligation. The life story of community health worker Tejen Das shows how he struggled to find a balance and manage his relationships as a community health worker with the Center and a proprietor of pharmacy in the Sataki Bazaar (Chapter III). Inevitably, in the everyday exchange between a community health worker and her client/beneficiary, the calculation of risk departed from its discursive practice.

In Shatnal, the public health campaigns distributed risk and unhealthy behavior across different social categories, particular risk becomes sayable and normalized (Peterson 1997), but it does not necessarily install an all-encompassing risk culture as predicted by leading scholars interested in the formation of risk society (Douglas and Wildavsky 1982; Beck 1992; Law 1994; Nettleton 1997; Crook 1999).[103] Instead, the logic of risk is inserted and incorporated into the public health bureaucracy. The category and discourses of risk emerge as a space of governance in which "at-risk groups," the beneficiaries of public health services in Shatnal, negotiate

[103] To oversimplify to the point of injustice, I have brought together scholarly works that approached the risk phenomenon from diverse theoretical orientations. Mary Douglas and Aron Wildavskys' (1982) from an anthropological perspective shows how the idea of environmental and technological risk is a collective construct in the US. Contrastingly, Ulrich Beck's (1992) interest in the formation of risk society does not concern the cultural specificity of the idea and practice of risk. With his notion of the risk society he elaborates how risk as technology determines the political order of things in late modernity. For Beck (2001), "the novelty of risk society lies in the fact that our civilizational decisions involve global consequences and dangers. These radically contradict the institutional language of control (p. 98)." Foucauldian scholars interested in the problem of governable future departs from this notion of coercive power that is implicit in Beck's theorization. Their emphasis lies on disciplinary power (Nettleton 1997). The Foucauldian insight, as underscored in Stephen Crook's work (1999), that ordering is always failing and incomplete gains sharper methodological edge in actor network (AN) analysis. John Law's (1994) insistence that there may be ordering but no order is generalized as a call for a sociology of verbs not nouns (p.15).

unequal access to material resources of health care. In the following section, I elaborate on the materiality of discourses of risk, its materialization as a question of access.

Gaining Access

I return to the question with which I started the discussion in this chapter, but ask it differently here: when fear of cholera/diarrhea is not as palpable as it was in 1963, how do discourses of risk remain valid and maintain their hold on people of Shatnal? Cholera is still a persistent threat, but advanced scientific knowledge has conquered it. The discovery of ORS has tamed an epidemic that once took lives mercilessly in Bangladesh. How this scientific conquest influenced health practitioners' everyday understanding of cholera as risk for life in poverty? The senior scientists of the Center in Dhaka, or medical officers at the Shasthya complex, would often tell me, "The decline of case fatality rate from the diarrhea/cholera does not change the condition of endemicity in Shatnal or elsewhere in Bangladesh. Risk of seasonal occurrence is always there."

The endemic condition of cholera/diarrhea constitutes part of the answer. Spending many lazy afternoons with the *ayahs* (helpers) of the Center in Shatnal making *muri-bharta* (spicy rice-puff) and listening to local gossip, I knew there is more to the logic of investment in a healthcare facility that is barely accessed by local people. The Center in Shatnal is part of the epidemiological information system that is maintaining longitudinal data on the incidence and prevalence of diarrheal diseases. Every month, community health workers at the Centers grudgingly prepare monthly reports, and mock their reporting officers, "the system needs to be in place, recording must be in order at all time." Maintaining records is highly prioritized in their daily activities. They are repeatedly told that "to detect any change in the pattern of incidence of diarrhea, to detect any risk of impending cholera epidemic a recording system must be in place."

From the unspoken perspective of ICDDRB, the construction of risk as immanent ensures access to continuous data and funds to maintain the epidemiological information system.

To the people of Shatnal, particularly women who are subjected to these risk discourses, it is *bakkor-sakkor* (meaningless repetition). When they refer to these discourses, it is often sardonically. Still they attend the monthly meetings with community health workers, take time away from their daily chores, when they come for weekly home visits. Even though the health worker spends most of her time talking about hand-washing practices and diarrhea prevention programs, she is their only everyday access to women's healthcare. From this space of absence, most women in Shatnal engage with the discourses of risk to secure access to the bare minimum resources for their unacknowledged health care needs (Meskell 2010).

Scene 1: A community health worker's home visit

CHW: Apa (sister), you remember the health risk during pregnancy right? Tell me the signs and symptom of preeclampsia?
Client: This is my third child. I know this *bakkor-sakkor* (meaningless repetition). Mithila [her daughter] is bleeding like a *quarbanir garu* (bleeding like a sacrificial cow, like its throat slit open with a sharp knife). She does no go to school, nearly bedridden. Do you think health apa at the Shasthya Complex could do something? Should I go there? Or should I give her my pills?
CHW: Yes, she can start on the pill. It would regulate her cycle. But, are you sure you want to put your unwed daughter on the pill? What would people think? Be patient. *It could happen after that*.

We never used the word "abortion" to talk about what exactly had happened. Since the health workers frequent the medical world and have social connections with pharmaceutical representatives, they could often arrange access to misoprostol (cytotec) at minimum cost.[104] A community health worker cannot make ends meet with the salary alone; male health workers

[104] Misoprostol is a medication used to induce labor, prevent and treat stomach ulcers, and treat postpartum bleeding due to poor contraction of the uterus. In Shatnal, women often try to find access to Misoprostol to perform an abortion on themselves.

often open a pharmacy to compensate for the deficit in their income. For women, they always carry a few strips of antibiotics to provide cure and comfort from illnesses like yeast infection, urinary tract infection. It is in this unequal economy and piecemeal medical system that discourses of risk remain in circulation.

Scene 2: A return from the Center in Shatnal

Sister-in-law A: Oh! The doctor won't let me come. They put *genda* (infant son) on this scale, then on that scale. He [the community health worker at the Center] kept insisting that I should get *genda* admitted and stay overnight. Then he started telling me about the risk of dehydration. I know, how to administer ORS.

Sister-in-law B: Why would you even go there? Just for that *patla paykhana! (watery stool)?*

Sister-in-law A: Genda was crying from stomachache all morning. Anyway, it was real trouble to leave the Center without upsetting *daktar shaheb.* I don't want to upset him, we need him in time of real health crisis.

Sister-in-law B: That's true. In real crisis, particularly at night, no one really cares except for him.

In Shatnal, discourses around risk do not always communicate the intended hegemonic meaning of "risk". It is apparent in the above conversation between two sister-in-laws. The *health apa* from the Shasthya complex is rarely available. The medical officer is always absent. A few pharmacies and the community health workers at the Center are all that are available in times of real crisis. They endure the eccentricities of *Daktar Shaheb (*the eldest health worker of the Center in Shatnal), sit through his speech on diarrhea, and tolerate his handwashing demonstration in order to be on good terms with him. The discourses of risk remain in circulation because they ensure certain access to health care.

Reading Vernacular Cosmology of Risk

In Bangladesh, tensions in defining an at-risk demographic categories are historically enduring. As a native to the land, I am familiar with nihilism constitutive of Bengali subjectivity. I recognize the casual, intentional and/or unintentional disregard for known risk in everyday life.

This nihilistic tendency affirms that risk is an epistemological as well as subjective category of our understanding of lives (Dean 1999). When crossing the river by engine-operated boat, I would often hear people yelling at the boatman to take a faster but riskier route. Each time I lent my voice supporting the boatman, I got into an argument with a group of men who would shout at me, "*protidiner rastay bipod ar bipod thake na, eta shortcut, eto bhoy thakle rastay bair houner kam nai, eta short-cut* (when it's every day, it's no longer risk. If you're so afraid, go sit at home, the risky path is the short-cut [to their respective destinations])." They would glare at me and feel assured of their masculine selves – if I am not daring enough, it is a symptom of my feminine weakness.

Women too spoke with me of risk. Mostly in the form of sisterly advice: "Come home before *maghreb*, it is risky in the dark." Then there is Kushum's life story. She had six miscarriages before she gave birth to her daughter. During her pregnancy, she was diagnosed with breast cancer. A mastectomy and removal of lymph nodes failed to stop the cancer's metastasis. Her husband pleaded with her to terminate the pregnancy, but she did not. According to her, "*bachar jonnoi jiboner jhunki nilam, bon* (I took the risk in order to live life, sister)." It would be mistaken to interpret her desire to live by embracing death simply as undefeated maternal instinct. Her desire to die as a mother and no less was one of many factors; she was one among many people who took part in the decision-making process of her cancer treatment. Logic of risk calculation is rather inconclusive in her story of death and survival (Boholm 2003).

Rubel, a mugger, often worked as a hired *goonda* (thug) in Shatnal. I have mentioned this event of being mugged during this ethnographic earlier in the introduction. Considering the relevance of the event, I will elaborate on it further here. I was returning home after sunset. He stopped me, held a dagger to my waistband and asked for everything I had. But instead of taking

my possessions, he decided to give me advice: “as a woman, you should not be out alone at night, especially *beparda* (without head cover).” A month later, I ran into him again at my house in Shatnal. My landlady had hired him to evict a renter. Nervously, I asked a rather naïve, decontextualized question to which his answer is pertinent in this discussion of vernacular risk. He replied, “I earn entertaining dangerous task, risk is my profession. And who do you think would take the risk of reporting me to the police?” For him, risk is a productive force (Zaloom 2004). His worldview of risk illustrates how decisions about risk and management of risk are socially embedded notions about the state of the world, what the world consists of and how it works (Douglas 1992).

From the perspective of cultural anthropology, these vernacular perceptions of risk show how classic demographic categories of age, gender, occupation and social class play important roles in the ways people calculate risk (Douglas, 1992; Lupton 1999; Lupton and Tulloch 2002; Boholm 2003). These everyday narratives of risk underscore two interconnected observations that often remain at the margin of growing sociological literature on risk. First, risk is not a futuristic, epochal concept as perceived by many scholars interested in risk research (Douglas and Wildavsky 1982; Beck 1992; Luhmann 1993; Baker and Simon 2002); the social life of *jhunki* has an ordinary, everyday dimension to it. Second, risk is not merely matter of ordering reality or rendering it calculable, as argued by govermentality scholars (Ewald 1991; Castel 1991; O'Malley 1992; Dean 1999). Epidemiological assessment of risk charts the territory in governing population; what remains outside of this territory is a form of risk that does not concern the national and translational interest. The risk of life from persistent negligence and corruption of the Bangladesh Inland Water Transport Authority (BIWTA) does not disturb the global (public health) civil society. There are forms of life and risk that exist outside the domain

of the governed. When talking about his work on maintaining epidemiological data for the Center in Shatnal, Dijen Sen, a community health worker, often mentioned this particular kind of risk that does not have a *byapari* (broker/patron) – *shob bipoder byapari nai (All risk does not have a broker/patron)*. For him, there are two kinds of health risk: one that promises access to resources and the one that is 'just risk' with no institutional, governmental benefit. Meena Begum, a retired family planning officer, also affirms these categories of risk. However, in her categorization, she distinguishes them as *ashol bipod* (true risk) and *sarkari bipod* (government's risk). In her own words, *ashol bipode kono mohajoner tiki dekha jay na* (No one comes to broker, if real disaster befalls). Through these categorizations of risk, a complex ontology of inequality unfolds that differentiates between moments in a hierarchical manner to determine when is risk matter of governmental concern (Fassin 2009). Therefore, in the context of my research, the politics of risk is about not only producing governable risk, but also deciding the sort of risk for which the government should be accountable.

Interjection: Amputated Leg, November 22, 2012

"If memory is a sense, like hearing and touch, it is the sense that penetrates or collapses time," said Momen Sarkar as he recounted the *Kalo Ratri* (March 25, 1971), the black night. We were all sitting at his house, gathered around a kerosene lantern. He was heating the antique coal iron press. A crinkled white kurta and a black coat lay on his bed. As a decorated and recognized freedom fighter, he will be honored tomorrow morning at a public event.

March 25, 2011. After midnight, it would be the 40th anniversary of the independence of Bangladesh. The entire nation is awaiting a grandiose celebration. Matlab is prepared too.

This is not an extraordinary event. Every year, the Matlab High School organizes a cultural ceremony in which the contributions and sacrifices of freedom fighters are remembered

and acknowledged. Momen Sarkar has been the chief guest of this event for the past decade. The student choir will perform the national anthem; national flags will be raised. Then school children will honor local *Muktijoddha*s with bouquets of flowers.

Irrespective of social differences, everyone in Matlab, whether old or young, calls him *Muktijoddha kaka* (uncle Freedom Fighter).

In 1971, he was with the East Bengal Regiment stationed in Chittagong. His battalion mutinied against the Pakistani regime. On that fateful black night, two hours into the armed battle, he was shot and fell into a ditch. His comrades thought he was dead and left without him. When he regained consciousness, he too thought he was dead. Beautiful clear sky, dazzling stars – exactly as described in one of his favorite Tagore songs, "*ratri ashe jethay meshe diner parabare, tomay amay dekha holo shei mohonar dhare. Sheikhanete shada kaloy mile geche adhar aloy, ratri ashe jethay meshe..*(Where night flows into day's shoreline, You and I meet at that borderline, There light startles darkness into dawn, Where night flows into day's shoreline).[105]

Slowly writhing in pain, he realized he was not dead. He does not remember how long he lay there half ashore. Days or hours later, a West Pakistani officer spotted him. Handcuffed, he was taken to the cantonment hospital. One day, probably two months after his imprisonment, the attending physician asked the nurse to prepare him for surgery. The next day, his wounded leg was amputated. He was told he would be court-martialed once he recovered.

In 1972, he returned to Bangladesh as part of the prisoner exchange program with Pakistan. On a crutch, with a Singer sewing machine, he returned to independent Bangladesh. A

[105] This is a lyric from Ranbindranath Tagore's collection of songs, *Gitabitan.* This particular translation is by Fakrul Alam. See, Tagore, R. (2011). *The essential Tagore*. Cambridge, Mass.: Belknap Press of Harvard University Press.

Pakistani jailor gave him the sewing machine and taught him how to make women's blouses and pathani pajamas. Until the day he died, he sewed for his family. His daughter Yasmin and wife Farida never went to a tailor.

"The government of Bangladesh treated me well," *Muktijoddha kaka* insisted. He got a job as part of the injured freedom fighter rehabilitation program. He was even able to enlist himself with the Ministry of Liberation War Affairs. At the end of each month, they scraped by with only *dal ar alurbhorta* (lentil and mashed potato), but he was able to send his children to college. Locally, in Matlab, he was a respected *Muktijoddha*.

In life, he was a very content man. He would recount his time in Pakistani prison with *shayari* and jokes. It took me many months to learn that he had once been on death row. In 1963, when the Center was established in Matlab, his father was holding a position with the local administration. I would often go to his house to look for historical information amid the documents in their family archive. I also visited him and his family to vent and laugh about life when I was exhausted from my miserably gendered experience in Matlab. Some days, he would call me to do an Internet search on a particular cardiological condition that his physician has mentioned he might have.

On November 22, 2012, I received a text from Humaira: "Abba went into cardiac arrest, we are going to the Thana Shasthya Complex." I was at the Complex before they arrived. We all knew the routine: if a situation arose, we would arrange an ambulance, oxygen cylinder and a physician who would administer the emergency defibrillator and accompany him to the Chittagong Cantonment Hospital (CCH). Everything was in order: an oxygen cylinder, an ambulance and a physician. It was a fairy tale moment for a government hospital. He was stabilized, we started for Chittagong. He even tried to say a few words about the

commodification of *deshprem* (patriotism). We prevented him from talking, adjusted the oxygen mask. Suddenly the red needle pointing the full cylinder dropped down to zero pressure. Gasping for oxygen he took the mask off. The machine began to make noise. And he died.

Humaira placed an affectionate hand on her father's forehead and looked at us. “He is still warm.” She looked at his half open eyes, and sighed, “Only if you had listened to the doctor’s advice, this day wouldn't have come so early.”

Two years ago, doctor at the CCH advised him to have open heart surgery. He asked the doctor to describe the procedure to him. In Bangladesh, it is uncommon for a physician to explain a medical procedure to the patient. When his physician came to the part about removing a piece of vein or artery from somewhere else in the body — possibly the leg to channel blood flow past the blockage, *Muktijoddha kaka* interrupted. His physician tried to explain how risky it is for him. He insisted, “I do not want to do it. Let me embrace risk. If blood stops flowing in my left leg, I become immobile, bedridden, and invalid. What would I do with a beating heart? Let it stop.

CHAPTER VI: MAKING EXPERTS

Making a Career

> "Gender is a good career."
>
> - Security guard, ICDDRB, Matlab Hospital

> "For doctors with a public health degree in Bangladesh, an interest in diarrheal disease makes for a good career."
>
> - A public health professional started his career at the ICDDRB, Matlab Hospital, now works for Médicins sans Frontières (MSF)

> "The East is a career."
>
> - Disraeli, in Edward Said's *Orientalism* (1978)

Is "the East" still a career?

Many contemporary postcolonial scholars have questioned whether this claim holds true today (Robbins 1993; Chowdhury 2006 and Mazumdar 2009).[106] With the collapse of colonialism, the emergence of independent nation states, and the reorganization of global political relations, has the role of science and expert knowledge changed? Some colonial

[106] Edward Said quotes from the nineteenth century novelist and a political figure Benjamin Disraeli's exotic tale of the East, *Tancred (1847)* in which the protagonist embarks upon a spiritual journey to discover what he called 'asiatic mystery.' Said's brash use of the quotation is strategic. In those few words he points his analytical compass to the politics of intellectual work and the expert knowledge it produces. Drawing from an eclectic range of academic disciplines including philology, lexicography, history, biology, political and economic theory, novel-writing, and lyric poetry, Said elaborates how a system of knowledge came to 'the service of Orientalism's broadly imperialist view of the world (p.15).' Their work filters essentialized idea of East into the consciousness of the West. Literally, in the formation of this system of knowledge, the East became a career milestone for tribes of zoologists or art historians interested in the Oriental butterfly or folk art. That is undoubtedly the case for German bacteriologist Robert Koch who became known as the "father of bacteriology" for collecting excreta and microscopically identifying the cholera vector from dead cholera victims in colonized India. Bacteria-ridden, diseased sites become productive sites in the scientific career trajectories of scientists like Robert Koch and WH Haffkine.

disciplines lost valence, while others gained momentum. In postcolonial Bangladesh, the discovery of oral rehydration therapy for diarrheal disease turned certain experts into science heroes. For some, a scientific career took an unusual turn, provided them with an opportunity to make a career as eminent Asian art collectors.[107] Immediately after the Bangladesh's independence in 1971, when the newborn state had yet to devise its legal structure, there was no law to protect archeological heritage. In this formative moment of governing technologies, prescriptive development models and archeological objects both travelled. The first circulated from the West to rest, while the later travelled from Bangladesh to the United States. An economy devastated by war allowed for the emergence of odd and unique professional opportunities for expats. Thus, alongside the creation of the new state of Bangladesh, accidental experts were also born. American homemakers accompanying their husbands on US Public Health Service deployments initiated family health programs, distributed controversial contraceptive technologies to rural women of Matlab, and later become expert voices of international health and aid intervention.[108] In short, the East still offers career possibilities in the postcolonial world. However, the East in the contemporary world is more a spatially distributed global category than a matter of accessing fixed geography.

Edward Said and his interlocutors' interest in the representational work of Disraeli's statement compelled them to read the idea of career as a metaphor. It signified a process of

[107] In 1967, Dr. David Nalin arrived in the-then East Pakistan in U.S. National Institute of Health Deployment. During his deployment he began collecting 19th Century bronze arts. He simply bought them from local authorized agent and illegally transported them to US. Decades later, a Bangladeshi graduate student in Art History found them displayed in a museum of Massachusetts. In 2013, Dr.Nalin was awarded "friends of Bangladesh" title from the government for his contribution in the scientific discovery of oral rehydration therapy. Many local activists including the-then graduate student felt offended by this ignorant gesture of the government. Leading newspaper ran reports, "David Nalin: Friend of Smuggler of Antiquities?" Personal correspondence with the graduate student in question.

[108] See, ICDDRB. (2003). Smriti: ICDDRB in Memory. ICDDRB Silver Jubilee Publication: Dhaka.

knowledge production in which the Orientalist scholar reduced the life of the Orient as object of their experimental/expert knowledge. In this chapter, instead of looking at this constellation of ideas and metaphors, I elaborate on a set of actions to draw discernible connections and comparisons between colonial and postcolonial career-making. Drawing from Studies of Expertise and Experience (SEE), I show that making a career involves acquiring expertise.[109] It is a matter of socialization into the practices of an expert (Collins and Evans 2007; Ash 2010). In Bangladesh, making a career in cholera prevention is a process of inheriting and disseminating norms, customs, and ideologies of colonial and postcolonial global health. This process provides the community health worker or health bureaucrat with the skills and habits necessary to internalize authority and thereby execute the prevention programs. While career-formation and expert-creation are inseparable processes, not all careers provide an opportunity to become experts. In the end expert authority is dependent on cautious negotiation among state, science and society. In what follows, I argue that in the context of Bangladesh, expert authority and expertise are conditional upon the process of demystification and liquidation of expert knowledge.[110]

[109] In their work *Rethinking Expertise* (2007), Harry Collins and Robert Evans reconsidered one of the main concerns for science studies that is the complex relationship between the expertise of the practicing scientists and the rest of us. They propose a Third Wave of Science Studies – Studies of Expertise and Experience (SEE) to dissolve the boundary between experts. They argue, how science and technology attempt to solve technical problems in the public domain is not just a question of authority and legitimacy. It is also a problem of extension. To elaborate further on this question of extension, Collins and Evans described different kinds of expertise. Two forms of expertise got more attention in their discussion than the others. They talked about interactional expertise in which expert knowledge is acquired through interacting with scientists, learning their technical language, not by doing science. Contrastingly, contributory expertise is gained through acquiring particular technical scientific skills like designing molecular experiments or computer programs. In this chapter, I draw from their proposition to elaborate different ways a community health worker and aspiring public health expert struggle to become an expert. See, Collins, H. (2007). *Rethinking expertise*. Chicago: University of Chicago Press.

[110] I use the term liquidation referring to its original economistic meaning to emphasize that in this context authority of expert knowledge is dependent on its ability to be liquidated and absorbed by the community health workers.

I draw from my research-friendship with an aspiring expert in public health profession, Talha Hossain. I first met him at an "Epidemiology, Clinical Management and Prevention of Diarrhoeal Diseases and Malnutrition" training organized by the Center. Hossain is unusually tall for Bengali man. The pen in his shirt pocket was leaking. He was wearing his Médecins Sans Frontières (MSF) ID card and therefore, easily stood out in the room. It was evident from his presence that he was familiar with this kind of training environment. Some of the participants evidently knew each other from before and were talking amongst themselves before the event began. Meanwhile, I was awkwardly standing by the reception, looking for my nametag, when Hossain approached me.

The Center organizes this annual workshop to comply with its memorandum of understanding (MOU) with the government of Bangladesh that it would offer training for government medical officers on clinical management and prevention of diarrhea. Given the Center's historic experience and expertise in battling epidemic cholera and diarrhea, this particular training program is globally renowned. According to one of the participants at the workshop, she saw this as a career investment and participated in all the training-workshops that the Center offers annually. She described the training, "if you are ambitious, if you would like to excel, this is the place to be. It gives her certain access to the Center even before she would appear as a job candidate." She is determined to get a job with the Center, "At the Center, a staff member even gets paid for farting."

The workshop was originally designed for physicians providing care to people in poverty at various government health centers and NGOs. As an anthropologist, I had an unusual academic background for the occasion, and my presence was a source of curiosity among the participants. Hossain was among the first who came to me and said, "I am here to build my cv

[curriculum vitae]. Some people are here because their office paid for training. What brings you here?" The notion of "building one's cv" reveals the enduring materiality of an otherwise exhausted metaphor – the East as career. In this chapter, I follow an aspiring public health professional's pursuit of expert status to situate the metaphor in its particular material conditions of becoming (Nanoglou 2009; Meskell et al. 2008). After our first encounter at the workshop, I meet Hossain again in Matlab, where he was born and raised. His dream of becoming a physician is tied to the stories and jokes he was surrounded by as he grew up, about *bhaggo banano* (making one's fortune) with the Center. By giving a biographical sketch of Hossain, I describe what role the Center plays in defining expertise and authenticating an expert voice in Bangladesh. What kinds of knowledge and skills, what characteristics or material qualities constitute expertise? How does one mobilize resources and invest emotional and intellectual labor to make their dream of becoming an expert a reality?

In October 2012, I attended a week-long intensive training on the case management of acute diarrhea patients, an experience that introduced me to cholera and diarrhea from an epidemiological and biomedical perspective. We learned to recognize the severity of dehydration from the color and texture of a cholera or diarrhea patient's skin. Color and consistency of stool is also crucial in diagnosing the type of the diarrhea. A mucusy stool normally rules out cholera, and is indicative instead of a bacterial infection such as Shigellosis. During the clinic rounds, I was part of the flock following Dr. Rubayet Rahman from the ward to infant intensive care unit trying to answer question like other physicians in the training. To be an expert, as Eric H Ash (2010) argues, is to possess and control a body of specialized practical or productive knowledge that is not readily available to everyone. However, possession of expert knowledge does not automatically ensure a place in the expert elite network (Castells 1987; Katz 2006). Disgruntled

medical officers, including Hossain, defined expertise as privilege. Taking Hossain's grievances into account, I shall elaborate on the process of making experts. Hossain described his grievances through the register of gender. In his view, the way mainstream development programs have prioritized women's inclusion into the formal economic sector, it has created a new kind of gender disparity. In the following section I engage with one of the silences about 'gender' practiced in this regime of saving lives.

"Gendering the Career"

> Technically, my home district would be Dinajpur since my father's family is from there. During the partition, my grandfather gave shelter to some Hindu families. There was not really a communal riot or anything. For taking the side of the *bedharmi* (locally this term refers to non-muslims), according to my father, tension prevailed years after that. They lived amid unspoken mistrust. In 1971, when the war broke out, my family could not take the risk. They left. Matlab is my mother's hometown. My maternal uncle was the headmaster principal of Matlab College. Back then, it was predominantly a Muslim League dominated, socially conservative area. Despite being a university graduate, my mother was not allowed to take a teaching position at the college. Elderly men in the household, like my *Nana* (grandfather) feared social backlash. Growing up, I often heard my mother refer to herself as being born in the wrong category. Now, I tell my mother, I am born in the wrong category [laughter]. In public health sector, women have it easy. Women are given a ladder to climb up. And for us [men]? Look at me [Hossain points toward him], we have to make our ladder, find a place to put it, then try to climb it.

The tide of "gender mainstreaming" programs that came with the development aid produced women as preferred category in certain social imagery (Cooke and Kothari 2001). In the vernacular use of the term in Bangladesh, gender does not connote social differences between sexes. Instead, as Hossain put it, gender is the name for institutional bias towards women. In other words, it means that men are "born into the wrong category." This is an expression common in Matlab; Hossain is not alone in his view. Many men, from rickshaw pullers to boat men, believe that women working for the Center have status and privilege that women are denied in society at large.

The story behind this claim of "reverse gender inequality" is embedded in the particular history of the Center in Matlab. After the independence of Bangladesh, the Laboratory implemented two "socio-scientific experiments" in Matlab that remain central to its institutional historical narrative (ICDDRB 2003). In 1975, the Center collaborated with the Ministry of Health and Population Control on the Matlab Contraceptive Distribution Project, which recruited women as field assistants and community health workers, including 154 *dais* (birth attendants). In the second phase of the project, as described in a scientific report, "the level of training and improvement of social status of the female village workers were further emphasized (ICDDRB 1979)." In 1982, BRAC and the Center co-developed a program to teach every mother in Bangladesh how to make ORS at home. Both the contraception and ORS experiments were implemented on a pilot basis in Matlab. Women were encouraged to apply and given preference over men. At that particular moment in history, few women in Matlab had formal education. With a few exceptions, the recruitment process resembled to men a women-only affair. For the first time, local women were allowed to enter into a salaried class. These pilot projects were, as a local historian related, "heavily funded" since population control was prioritized as number one area of development interventions by the government and aid agencies. Not only did these socio-scientific experiments create a niche for women in the development sector, but also meant that women would be well-paid within the local economy. However, for many women, their social and economic status as the new breadwinners relative to men created unforeseen conflicts within families. I will return to these conflicts in greater detail later in the chapter; for the purposes of this discussion, it serves as one manifestation the "gendering of career" in Matlab.

For Hossain and other participants at the training, women belong to a privileged category that is more likely to be nominated for a fellowship abroad or gain access to the network of

global (public health) civil society. While I generally agree with Hossain that there exists a global hegemonic interest in women's empowerment (Eisenstein 2009; Kabeer 2005), in conversation I repeatedly asked whether he thought women's inclusion in the economic sector or access to contraceptive technology threatened male dominance in Matlab. In our evolving friendship in the following three years, his perception and claims of "reverse gender discrimination" become a source of contention. For him, to become a public health expert requires being born into the right gender, to be a woman. He says forcefully, virtue is not enough. In his view, empathy, commitment to public service all comes secondary to gender. In the following section, I will further draw upon Hossain's expert ambitions to analyze the micro context of emergent public health "job market" of civic virtue (Palsson and Rabinow 2009).

Cultivating Virtue

> **:** My childhood or early adolescence was uneventful. Rather dull. I was a very studious student. In grade V, I did not ace the district-wide competitive examination. All my other siblings did. I was so ashamed and embarrassed that I hid under my books for the next three years, until I received the *talent-pull britti* (district-wide merit based scholarship) in grade VIII.
>
> **:** When did you decide to go to medical school? Or you just followed your parents' dream like every other Bengali middle class child?
>
> **:** My elder brother was a *meritorious* student. He passed the school final exam with distinction in Comilla board. Then he fell in love with a classmate who was from a Hindu family. They eloped. So, yes, there were familial expectations. But it was not only that.
>
> **:** What else?
>
> **:** We grew under the spell of the Center. There is a particular glamour to the life of a physician or scientist who travels around in Pajero Jeep or motorboats. Their white coats, their leather-bound writing pads emblazoned with the Center's logo. There is an appeal to this life of chasing diseases away from our land. Like many others in Matlab, I fell for it. After my higher secondary exam, I went to Chittagong Medical College for my MBBS and returned to Matlab as a medical research officer with the Center. That was my first job. Anyway, didn't that same glamour brought you to this town as well?

> **:** Well, it was the glamorous research activities of the Center as well as the stubborn poverty in Matlab.
>
> A conversation between Hossain and Saydia

Hossain's account casts light on the ways translocal flows and the visibility of ideas, objects, funding, and people shape local ambitions and domains of actions (Fisher 1997). Even more salient in his narrative is the locally prevalent belief that people in public health profession are "doing good" and "unencumbered and untainted by the politics of government or the greed of the market" (Zivetz 1991). This particular belief insists upon a strict separation of political economic interests and philanthropic intentions. Hossain's account demonstrates how forces of compassion and factors of economic interest interact in the global market of humanitarian action (Adams 2013; Bornstein and Redfield 2011; Palsson and Rabinow 2009).

From the perspective of anthropology, the phenomenon of "doing good" has gained ground as an area of ethnographic and theoretical investigation, particularly in the context international aid (Ferguson 1990; Zivetz 1991; Escobar 1995; Fisher 1997). The first wave of investigation deconstructed the apolitical claims of development projects in the so-called Third World and argued that development was, in fact, constitutive of a new mode of governance in the post-World War II global reality (Ferguson 1990; Escobar 1995). Postcolonial scholars and activist from the Global South argue that the political and moral language of doing good is a technique of masking the violence that development projects have wrought in these newly independent nation states (Shiva 1989; Nandy 1990; Akhter 1996). In recent times, the problem of "doing good," the spirit of development as a moral imperative has come under social scientific scrutiny with renewed interest. Peter Gourevitch and David Lake (2012) compiled a number of interesting case studies in *When Virtue is Not Enough* that demonstrate how NGOs establish and defend their credibility by virtue. However, they concluded recommending new measures and

strategies for NGOs, nonprofits, and other nonstate actors to bring about social change. While these bodies of literature challenge the "moral untouchability" of doing good they do so by devaluing individual stories of development (Fassin 2011). In these works, all virtuous labor is transcribed and read as tainted with ill motive of the global power (Wright 1999; Shojai and Christopherson 2004).

The way local people in Matlab remember the foreigners doing research contradicts with this reading. From Hossain and others, I have heard about a dedicated Dutch scientist who would dare the afternoon sun to continue with his data collection on postpartum depression. As Firoza, a *dai* (local birth attendant) recalls:

> His blue T-shirt [the uniform of a foreign expert working for the Center in Matlab] was soaked in sweat. Scorching heat turned his face as red as blistering tomatoes. We all thought he was going to give up any second, but he did not. Instead, every three months he returned. Some of them were very weird. However, they sometimes asked us questions that mattered to us. This tomato man that I was telling you about, yes, we used to call him "tomato," he asked us about epilepsy and postpartum depression. Every time he came to our household, we would burst out laughing, hysterically.

Taken together, Hossain and Firoza's account prompted me to reconsider the virtuous and other forms of labor in the making of experts. I draw from Elizabeth Povinelli's (2006) theorization of empires of love to understand the concrete linkages between forms of love and forms of governance. Following her pursuit, I present this story of an aspiring public health expert that makes visible "a set of systematic relations between forms of love and forms of liberal governance without reducing these relations to a singular kind of scale of power, to analogy, description or rumor (p.4)."

To return to the unacknowledged interplay between economic interest and philanthropic intention in the making of an expert career, I quote a job posting from the Center: "the candidate requires a minimum 10 years of demonstrated commitment and experience in combating

epidemic disease in the developing world."[111] In the context of building an expert public health career, empathy is a learned quality that involves both the labor of love and economic investment. In the following section, I elaborate further on the process of becoming an expert "both in the learning and subsequent wielding of knowledge in question" (Collins and Evans 2007; Ash 2010).

Learning Scientific Curiosity

> Growing up, I was a loner. I did not have many friends. In the afternoons, I would either listen to the radio or go to the Nidmahal cinema. Matinee shows were cheap. I have taken you there, you know all about matinee shows in Matlab. Then there were those rare afternoons when I would hang out with foreigners from the Center. Once I met this man, we met at the bazaar. He taught me how to do blood counts like hemoglobin, white blood cells etc. I was so thrilled. I was only 15 then. Of course, I had better English than many other kids in my school and he had better Bangla than anyone expected an expat to have. The glamour and glory of the microscope and blood sample was shattered when I went to medical school. The internship year on the general ward killed it. Vomit, blood, and pus had no science in them. We were like machines. Next. Next.

To become a scientist or a public health professional is not a common dream in other small towns in Bangladesh. This career path is very specific to the local history of the Center. The Center's presence for more than half a century has influenced the town in many ways, including the widespread desire to become an employee of the Center. This is not only because a research position at the Center is the most promising job in Matlab, but also because it confers a certain social status as well as material access to other benefits like Rupashi Bangla Housing Society.[112]

A local historian has written a draft of a manuscript titled *History of Matlab*, in which he describes the Cholera Hospital and the Center as combating disease and bringing "positive change" to the town. After I read the manuscript, I asked him to elaborate on what he meant by

[111] The ICDDRB vacancy announcements often include this quoted phrase. I have noticed this requirement in their job postings in newspapers and in online portals like UNjobs.

[112] In Bangladesh, a specific land acquisition law permits buying vast land in the name of a society or a collective body. Rupashi Bangla Housing Society is the name of the society through which Matlab based staff of the Center bought land in an affordable price.

"positive change." His answer was descriptive and evocative. According to his analysis, the agrarian elite in Matlab were largely uneducated. The introduction of cholera prevention and care activities of the Center created the socioeconomic conditions that allowed for the emergence of an educated middle-class in a small town like Matlab. Hossain belonged to this emergent middle-class and his privilege allowed him access to the infrastructure of science.

Hossain's scientific curiosity stems from encounters with experts and knowledge exchanges with both scientific and non-scientific staff of the Center. In their work, *Rethinking Expertise* (2007), Harry Collins and Robert Evens described the process of gaining expertise as a "matter of socialization into practices of an expert group and expertise can be lost if time is spent away from the group (p.3)." In the case of Hossain, through these expert encounters and exchanges he began to nurture this dream of becoming a scientist. He dreamt of becoming someone like these scientists at the Center who, "treat patients but also do research." It prompted him to develop a will to become a MBBS doctor (Bachelor of Medicine and Bachelor of Surgery). He chose to go to medical school to nurture that dream. His medical school training was part of his journey to acquire specialized biomedical knowledge not available to everyone.

However, neither a learned scientific curiosity nor control of a body of specialized knowledge can guarantee that one will attain expert status. The work of an expert, as described by Eric H. Ash (2010) should be "distinguishable from the common practitioner of a given filed (p.8)." On the emergency ward of Chittagong Medical College Hospital (CMCH), the repetitive and routine nature of Hossain's work was not distinguishable from that of other interns. To be acknowledged as expert or to realize the ambition of becoming an expert requires an interplay between experts and their (successive) audiences (Vandendriessche, Peeters and Wils 2015). In

the following section, I describe how an expert career involves a complex mediation among a host of actors and actants.

Coming into Contact with Feces

> **:** Toward the end of my degree, I considered myself an overworked, underpaid medical laborer who worked around the clock, just like a factory worker. The glory of the white coat and stethoscope had been totally diminished. I still remember vividly how dejected and demoralized I was at the Nayergaon Diarrhea Center. I had returned to Matlab for *rojar eid* (holidays for Eid-ul-Fitr), and my cousin's toddler was at the Center in Nayergaon with diarrhea. There the community health worker, Barek was taking care of patients, collecting stool sample, changing sheets, yet people approached him with respect, calling him *Daktar* (doctor). But he's nothing more than a drop-out who didn't make it past the eighth grade.
>
> **:** Barek Bhai matriculated (passed the school secondary exam) while he was working. So, what do you think may have contributed to his social respectability?
>
> **:** Because they [Community Health Workers] are not just wiping asses as part of routine patient care. They are contributing to medical research. They are part of an established research network, an international center. When Barek messes around with stool, not only Barek, a foreigner scientist plays around with stool at the Matlab Center, there is some prestige to it. Our work at the emergency ward of CMCH, drenched in blood, bile and vomit, had no glamour to it.
>
> A conversation between Hossain and Saydia

How does an ordinary, everyday act of defecation rise above its occasion? How does coming to contact with stool help create an expert career? Willful scientific contact with what scientists, physicians and public health professionals prefer to call "stool" is generative of capital, both social and economic capital (Rose 2001, Waldby 2002, Rajan 2006, Cooper 2008, Novas 2009). The biovalue here involves making feces visible, turning feces sayable.[113] People have always

[113] The concept of biovalue came into parlance in scholarly discourse largely to analyze the social and philosophical implication of stem cell, genomic research in the West (Rose 2001, Waldby 2002, Rajan 2006, Cooper 2008, Novas 2009). It has been used to articulate the relationship between capitalism and emerging cutting-edge biotechnological research. Therefore, in my analytical use of the term I carry the risk of losing sight of the historical particularity that the authors seek to address in their attempts at theorizing bioeconomy. When defining the nature of its scientific practice, the Center often draws a line between genomic research and translational research. However, I do not want to dissolve the differences between feces and stem cells as biological properties capable of generating value. Waldby (2002) referred to biovalue as "a process that yield of vitality produced by the biotechnical reformulation of living process" (p.310). Feces are fundamentally different kind of biological substance.

lived in proximity to feces; an open latrine has historically been the reality for many. In some particular moments and contexts, people would talk about shit, not feces. The everyday collection of data on post-defecation practices or childhood defecation made it sayable in Bangladesh. The natural habitat in which the infectious agent *Vibrio cholerae* normally lives, grows and multiplies is mapped. Therefore, feces leave their ordinary habitat for places they have never been. Feces' visibility, odor, and sayability facilitated through public health research produce a margin of value in more classic form because feces can become productive of value in terms of their potential to contribute in the making of an expert career. Its visibility stimulates interested actors for the generation of aid, funding for research and public health projects (Waldby, 2002; Novas, 2006).

At the Center in Nayergaon, Barek collects stool samples from the bucket in test tubes. He then takes those test tubes to the corner where there is a makeshift laboratory. He transfers the samples from the test tubes to a Petri dish that allows bacteria to grow. In the end, a doctor reviews the result of the fecal culture. At the end of every month, Barek collates all the results and prepares a report to send it to the Center in Matlab for data processing. Patients and their families in the ward are a captive audience for the community health worker performing the scientific task. Being a successful expert means identifying the right audiences and presenting ones knowledge in such a way that it met the needs of these audiences (Vandendriessche et al. 2015) When I ask about his research experience with Center, Barek's response speaks to the odd biovalue attached to feces in the context of Bangladesh:

> You know, when I first started at the Cholera Hospital, I was very uncomfortable. We never intentionally come close to feces, let alone measuring a bucket of stool. There is a reason that we wash with our left hand after we are done, because you eat with your right hand. As I worked as a surveyor, going from house to house asking about post-defecation hand washing practices, my friends would tease me for making a living out of stinky feces. I too felt miserable that I had to do this to earn my bread. But, now I am a

> respected member of the community. People respect those who work for the Center. I am known as *Daktar*.

The respectability of Barek's career as community health officer and Hossain sense of loss of expert status at the emergency ward in CMCH demonstrate the performative aspect of materializing expertise. Expertise requires some form of public acknowledgment, affirmation, and legitimation to make it real. This emphasis on the embodied performance of an expert helped me understand how Barek overcame his class background and educational barriers to earn expert status, while Hossain's experience of routine work at an overcrowded government hospital, he become one of many struggling interns. However, Barek's status as an expert is locally rooted. It leaves me with this vexing question: can a community health worker be an expert?

Since its establishment, the Center has emphasized the empowerment of community health workers. In doing so, it has made a significant effort to translate and distribute expert knowledge through different kinds of training programs for community health workers. If, as many SEE (Studies of Experience and Expertise) suggest, expert authority is dependent on control over a specialized body of knowledge not available to everyone, then the authoritative voice of ICDDRB should be at risk. The reality, however, is starkly different. Reckoning with the hegemonic voice with which the Center continues to define the public health agendas in Bangladesh, I argue, in the context of Bangladesh, the authority of expert and expertise is conditional upon the process of demystification and liquidation of expert knowledge. The nature of authority that ensures Barek certain respectability and allows Hossain to recover the glamour and symbolic power of his white coat is rather distributive. In the context of Matlab, both Hossain and Barek gain authority through their encounters with scientists, scientific objects and institutions and the local administration (Vandendriessche, Peeters and Wils 2015). In the following section, I elaborate Hossain's struggle to recognize the hegemonic network, access to

which is foundational in gaining legitimacy as expert.

Knowing the Network

> Less than a month into my work with the Center in Matlab, I got another job offer for similar position in a UNICEF project. Only the salary was far better. My wife did not like the idea of leaving Matlab for Habiganj. Here, she has family to help her with our son. Ishan was only six months old then. Relocating to Habiganj essentially put her career on hold. Besides, the job with the Center has more prestige and prospects. Like that, abruptly I left Matlab. It was a short term project based job. Sixteen months later, I found myself unemployed. I finished my MPH. At first, I thought it had worked really well. Immediately, I got a job with MSF. It pays well. Meanwhile, I applied for Canadian Immigration. It's been four years, and I am still working for MSF at the Kamarangir Char [largest slum in Dhaka], and waiting for immigration application to be approved. My colleagues who joined ICDDRB with me are either giving paper at ASCON, frequently traveling abroad. I left the epicenter of public health advocacy in Bangladesh. That's a real misfortune. Now in the moment of *paribarik jhogra* (conjugal fights), my wife would thump her own forehead, repeatedly say, "s*hobee kopaler dosh* (fault of my own fate)!"

On the banks of the perilously polluted Buriganga River, MSF runs a primary health care center that provides care to children under five and pregnant and lactating women. Hossain is a consulting physician of this center. Last time I spoke with him; he was seeing patients at the MSF center. Most suffer from dermatological issues or malnutrition. At work, he is mostly frustrated about his fragmented authority. He has the knowledge, skill and expertise to observe, record and analyze the health concerns in Kamrangir Char. Having worked for a decade in the public health sector, he has a clear vision of what would make a difference. However, he does not have the power to voice his vision or concerns. His expert authority goes no further than the boundaries of this health center. As he says, "I don't want to just sit here and write the same prescription over and over again."

Hossain, the frustrated, voiceless aspiring expert, illustrates that scientific ambition, social engagement and state administration have always been closely entangled in the production of expertise (Vandendriessche et al. 2015). Ultimately, expert identity is a cautious negotiation

among state, science and society. In Bangladesh, the Center negotiates among different actors to determine and define the role of experts at different levels of the public health system. It is for this reason that Hossain's decision to leave his job with the Center was such a contentious and sore moment in his career. Despite his intimate history with the Center, he was unaware that to be truly heard as an expert requires becoming part of an elite network with access to particular sets of events and spaces (Castell 1989; Redfield 2012).

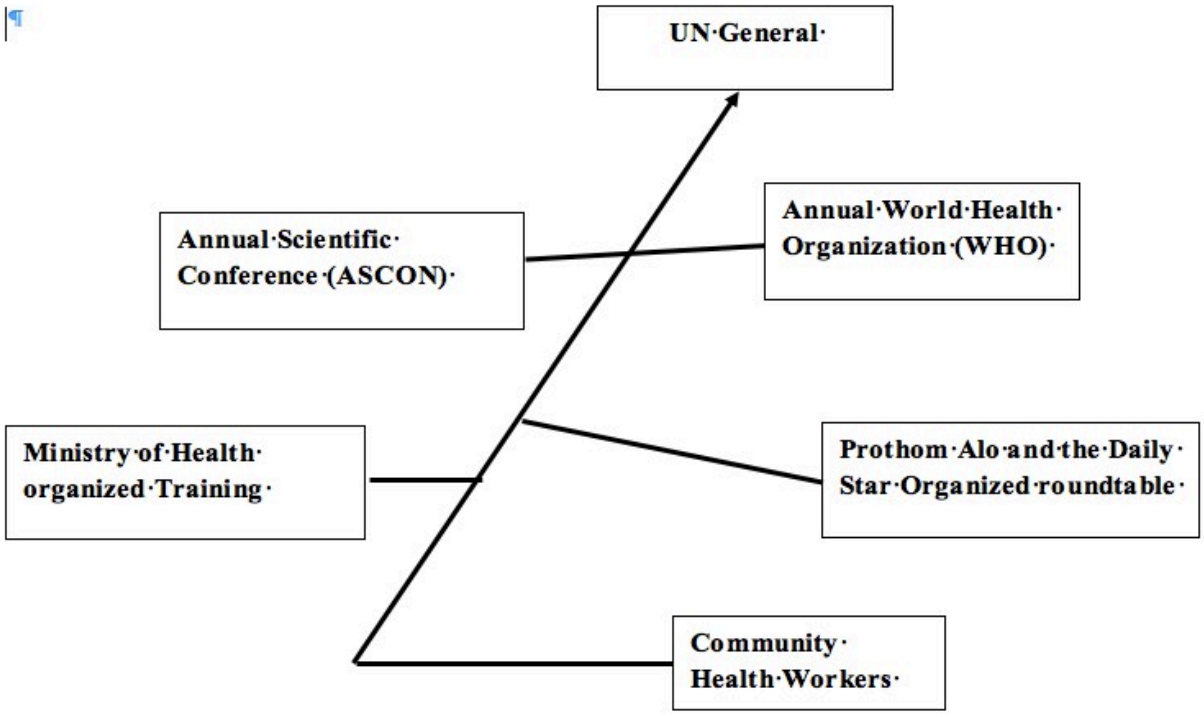

Figure 12 In the eyes of an aspiring public health expert, the infrastructure of definition for public health in Bangladesh (as described and scribbled in his notepad)

Hossain is a very visually expressive person. His thinking process has some statistical precision. He would always draw diagrams, charts and scales to explain and describe his position and view on matters of public health in Bangladesh. To describe why ICDDRB is the epicenter of public health advocacy, he scribbles on his prescription pad and draw a hierarchical structure of events. His hierarchical list of events included various community health workers' meetings, the

Ministry of Health and Family Welfare organized planning and training events, Prothom Alo and Daily Star organized roundtable discussions on public health issues, and Annual Scientific Conference (ASCON) organized by the Center, Annual World Health Organization Assembly held at Geneva, and UN General Assembly (Figure 12). In his view, these are spaces where public health problems are debated and defined. In the context of Bangladesh, MSF does not have a significant voice, whereas the Center historically determines the public health agenda. It also decides who gets to attend these events. For the WHO annual general assembly (2010), the Center drafted the agenda for the Bangladesh government, prioritizing cholera as "the number one problem of the country" (Chapter 1: Story of a False Cholera Alarm). It also bore the travelcosts of the government officials who attended the meeting in Geneva.

In other words, in Hossain's memory, the job with the Center meant access to a hegemonic network. Leaving the job, he unwittingly denied himself that access. In his idealized view of the Center, he never considered being at a lower echelon, waiting in life for a promotion to reach to the ultimate chair where his voice would count. In the following two sections, I talk about how the process of materializing expertise or being heard involves a complex negotiation between "doing good," entertaining scientific passion and addressing the globally defined public health agendas for Bangladesh. In Hossain's evocation, doing good is rather uncomplicated ethical gesture in public health. Can you do good and take different sides?

To illustrate on this question, I complement Hossain's story with the story of a nutritionist from the US who lived a life of an expert in Bangladesh for decades, but never fully gained the status of an expert and got to enjoy the privileges most expert do in Bangladesh. The nutritionist's struggle to survive as an expert in Bangladesh draws a line between the moral impulse to doing good and the ethics of doing good.

Doing Good, Taking Sides and Gaining Access to the Network

> **:** I don't want to just sit here and write the same prescription over and over again. I want to do things that would stop patients from keep coming back with the same symptoms. I want to work toward a future in which the condition of writing this prescription will be broken, you know what I mean, right?
>
> **:** I think I do. But, tell me more.
>
> A conversation between Hossain and Saydia

The appeal of working for the Center is that it guarantees a good career while doing good. In retrospect, a scientific position with the Center would have immediately granted Hossain access to events and both governmental and non-governmental decision-making bodies. For him, knowledge production at the Center stems only from the devotion of true scientists and the compassion of public health professionals. To describe this passion for science and knowledge, he often spoke of the Dutch scientist who had braved the scorching heat of *Baishakh* (according to the Bangla calendar, the peak of summer) to study schizophrenia and mental illness in Matlab. When I asked, "Don't you think it is rather odd for a diarrheal disease center to study mental illness?" Hossain looked a little perplexed. I told him about an awkward encounter I had at the Center in Turki, where the Center is conducting a longitudinal study of the IQs of children under 12. Neither Hossain nor I had access to a detailed description of these research projects to resolve our perplexity. It added a new layer to the historically circulating rumors about the unethical practices of the Center. Nationally recognized public health activists have been arguing against the Center, claiming that it is using the population of Matlab as their research subjects or "guinea pig." I am cautious in my engagement with these activist discourses; however, I

recognize the tension between "scientific ambition," "doing good" and "public health decision making."[114]

This tension became most explicit when I spoke to an American nutritionist, David Mahaffey at a press conference organized by the Center in Dhaka. Mahaffey's involvement with the international public health initiatives in Bangladesh had a rather unconventional beginning. During the war of independence, at the peak of refugee crisis in Indian border, he walked into the UNICEF office in New York one morning and demanded that they send him to India with relief for the starving children in the refugee camps. They told him politely, but firmly, that "the US government does not support the Bangladesh Movement. Their hands are tied, although their heart cries for the suffering children." Mahaffey walked out of the building and decided to set up a protest camp in front of the UNICEF headquarters, reenacting the scene of the refugee camps in Bongaon, India. This protest later led to initiatives like the Concert for Bangladesh. Finally, on December 18, 1971, two days after the declaration of independence, Mahaffey arrived in Bangladesh. He celebrated his twenty-fifth birthday in Dhaka and chose to spend the next two decades working in the public health sector of Bangladesh. From the beginning, he was very critical of the scientific activities of the Center and considered making a career at ICDDRB to be morally objectionable. However, he had worked in Matlab critically evaluating the family planning programs.

In 1975, when Mahaffey first visited Matlab, people were reeling from the famine of 1974. The most visible aid intervention in the area apart from the Center in Matlab was family planning program. He remembered meeting with women who were sterilizing themselves for a

[114] I engage cautiously with this long history of rumor about the unethical scientific practices of the Center, because an uncritical reliance on these narratives would simplify the relationship between the Center and people in Matlab into mere relationship of subject and object.

bucket of rice and cash payments. In the US, he was part of a collective who were mobilizing against unethical investment of taxpayers' money in the name of international development. They were particularly focused on population control projects of AID (Agency for International Development of US), that they thought essentially working as distributor of reproductive technologies with adverse side effects. Their ethical concerns were more straightforward. They arrived with a mission to document what they have called "gynocide" or the adverse effect of the contraceptive dumping.[115] Drawing from this research, Mahaffey and his colleagues wrote extensively about the violence of the program. They wrote for peer reviewed journal and newspaper columns to raise public awareness internationally, especially in the US. He recalls,

> But I was not ostracized by the expert community because of my vehement opposition to contraceptive dump. Even within the Center (then the Laboratory) there were opposing voices. As a nutritionist, as an expert my credibility was challenged when I opposed family planning program with my longitudinal study on nutritional consequences of biodiversities of fisheries. I was doing the research as part of the Bangladesh Flood Action Plan team. During this research, we were able to establish a link between seasonal changes, fish intake and women's' fertility cycle. It was really simple then. When the flood water subsides, there are more fishes in the canal and river. Of course, I am talking about late 70s. Things are different now. So, women literally would get drunk in *mala-dhala* (small fishes). Most women would conceive around this time. The demographic surveillance system that ICDDRB had in place supported his observation. I recommended that instead of this aggressive family planning programs, we should take into account this natural cycle and ecological context. Now, I would oppose governing fertility at all cost, but that was not my position at the time.

[115] In 1971, Dalkon Shield introduced its new IUD (Intrauterine device) contraceptive product in the US market. Within months after its introduction practicing physicians began to report adverse side effects. Seventeen cases of fatality were reported. At this point, the future of the product in the US market looked bleak for Dalkon Shield. In their search for an alternative market, the Office of Population within AID with a budget of $125 million to spend on the purchase and overseas distribution of contraceptives came to their rescue. With financial support from AID and in collaboration with the government, the ICDDRB started to distribute these contraceptives in Matlab for free (ICDDRB 1979). David Mahaffey and his social activist colleagues in the US called this Dalkon Shield and AID joint initiative to free contraceptive distribution as gynocide and contraceptive dumping. Feminist science studies scholar Michelle Murphey (2012) recently looked at this particular initiative and described it as cold war biopolitcal strategy. See, Murphy, M. (2012). *Seizing the means of reproduction: Entanglements of feminism, health, and technoscience*. Duke University Press; also see, Rahman et al., (1978). The Matlab Contraceptive Distribution Project. *Scientific Report 32*. Dhaka: ICDDRB. Retrieved from dspace.icddrb.org:8080/jspui/handle/123456789/4214

On the 40th anniversary of the independence of Bangladesh, many development experts from his time were honored by the government of Bangladesh. He was somewhat distraught and heartbroken when he did not see his name, but instead the name of Dr. David Nalin, a former director of the Center, and someone publicly accused of smuggling antiquities from Bangladesh.[116] Being a white male nutritionist from the US he had access to the decision making infrastructure, he belonged to the right racial, gender category to be heard. Yet, he was not heard. He lend his support to the wrong ideological side of the donor-expert-state network. Therefore, his marginality as an expert shows that an attempt to supersede existing political orders produces its own tensions, exposing disagreement about the nature of good science as well as good politics on a national and global level (Miller 2004).

Maintaining Access, Managing Knowledge

Three years later, Mahaffey arrived in Matlab with a feminist colleague. One of their local research assistants, who had helped them get connected with other women suffering from contraceptive use related complication had died. The last time they met her, she was frail and suffering from excessive bleeding from an IUD implant. Her death was saddening. Even more tragic for Mahaffey and his colleague was that death and suffering were in plain sight.

In Matlab, they come to know that Dalkon Shields produced IUDs were still being distributed for free through a USAID funded "operational research" project.[117] The project was implemented in collaboration with the Center in Matlab and the government. The silent partner of the project was Dalkon Shields, along with other undisclosed pharmaceutical companies producing contraceptive products in the US. The main objective of the project was to determine

[116] See, Mohammad Shahjahan, "Smuggling Antiquities worth one crore," *Weekly Bichitra*, November 18, 1977.
[117] In the field of international development, operational research (OR) encompasses a wide range of problem-solving techniques and methods applied in the pursuit of improved decision-making and efficiency.

"the efficacy of family planning programs by comparing different models of it" (Rahman el al 1978). One of the project staff recollects

> As part of the study, the Center introduced select Maternal and Child Health (MCH) interventions, such as oral rehydration, immunization, and basic health care measures, to its family planning program to determine which additional interventions had the greatest effect on contraceptive prevalence rates. The study concluded that expansion of the health services was detrimental to increasing family planning use. The study recommended immediate scaling down of MCH activities. In effect, the serious problem of diarrhea and its local and affordable solutions was withheld and eliminated to enhance the family planning program. Senior scientists at the Center were divided. Some believed that this recommendation contradicts the Center's scientific mission to fight cholera. It is not here to control fertility or overpopulation. Despite fierce criticism of the local public health activists, the government of Bangladesh acquiesced to this imperial project of population control. The ruthless family planning program continued and the program to launch homemade oral rehydration solution only began when the government reached its target for population control in mid 80s.

"Truth and reality were chilling" for Mahaffey and his colleague because the way knowledge was managed: Firstly, many women in Matlab were complaining about excessive bleeding from contraceptive use and field workers from the Center had documented their experiences. However, no actions were taken in response. Secondly, it was proven that homemade oral rehydration solution (ORS) properly administered at home could reduce the case fatality of diarrhea related child death. Therefore, the Center recommended that the government undertake a mass public health campaign on the home preparation and administration of ORS. However, leading health actors including USAID, WHO and the national government chose to ignore this scientific recommendation until the country has reached its recommended target for population control. The Center set aside its own recommendation and continued its ideological support to the US population control policies.

Finally, according to Mahaffey, the Center had the opportunity to withdraw its support in retrospect for a project that discouraged government investment in rural health infrastructure and

encouraged absolute attention to the household level free distribution of contraceptive pills. He insisted that the Center should acknowledge what they know. Even if it is in retrospect, truth should come out. His discussion about the burden of intentional unknowing is a confrontation between ethics of conviction and institutional ethics of research (Fassin 2007). Institutional bioethics resolves this clash of ethics tolerating deaths and suffering of some women to grant rural women (as population) greater control of their fertility.[118] Mahaffey's ethical perplexity revolves around the uncritical internalization of this bioethical paradigm. It suggested that status of an expert in the network depends on the way one inhabits the ethical world of public health experts in Bangladesh (Lambek 2015).[119]

Mahaffey's account of unethical management of knowledge makes it evident that unknowing plays a significant part in the making of a public health expert in Bangladesh (Geissler 2013).[120] Acquiring expert knowledge also involves an active engagement with this process of unknowing. The adverse effect of contraceptive or the delayed implementation of the

[118] This logic of life risked for greater good of the public is not historically unprecedented. Particularly, in the history of cholera research in South Asia isolated deaths of cholera victims had been tolerated to prevent future deaths of the global and local population. In this instance, David Mahaffey is anguished by the way the death of women from IUD related complications in Matlab was tolerated by the scientific staff of the Center. Didier Fassin (2007) documented these different registers of the ethical when describing the institutional crisis and conflict of MSF around the decision to stay in war-time Iraq. See, Fassin, D. (2007). Humanitarianism as a politics of life. *Public Culture, 19*(3), 499; 499-520; 520.

[119] In describing the ethical world, Michael Lambak (2015) suggested that anthropologist should take into account "for such a thing as ambiguity, ambivalence, uncertainty, hope, regret, compromise, compensation, rationalization and the lived gap between fact and value, but also, more positively, love, conviction, dignity, ease, determination insight and wisdom (p.xii)." Keeping his suggestion in my mind, I bring David Mahaffey's ethical perplexity and his assumption about the ethical at-ease of the scientists working at the Center when talking about the ethical world of the public health experts in Bangladesh. See, Lambek, M. (2015). *The ethical condition : essays on action, person, and value*. Chicago ; London: University of Chicago Press.

[120] To understand the management of knowledge, here I have drawn from P. W. Geissler (2013) theorization of "unknown known" in public health. Drawing on an ethnographic study of transnational science in Africa, he analyzed the contribution of unknowing to public health research. He argued, unknowing is a condition of scientific knowledge production under given material circumstances. In turn, it shapes this scientific work and sustains and exacerbates some of its inherent political-economic contradictions. See, Geissler, P. W. (2013), "Public secrets in public health: Knowing not to know while making scientific knowledge." *American Ethnologist,* 40: 13–34.

scientific recommendation about the national campaign on ORS are public secret. Therefore, unknowing is not referring to omission of information. It is the way scientists had managed this public secret to maintain aid flow and support for the Center. At the level of the individual scientists, some ideologically supported the larger story of women's emancipation behind the family planning program and chose to disregard the documented cases of death from contraceptive use. The local staff from the Center, including women, chose to look the other way because the job as family planning worker or field worker came with material benefit. In the post-famine economy, as Mahaffey said, "They were not privileged enough to make ethical choices. They could not afford to lose their jobs." Unknowing then also facilitates the process of becoming an expert and production of scientific knowledge. Switching between knowing and unknowing according to situation and experts maintain relations necessary to remain in the elite network of work public health.

Hossain narrated the hierarchical order of things in his visual depiction of the infrastructure of decision-making (Figure 12); however, he does not necessarily take into account the kinds of dynamics that Mahaffey witnessed: the complex negotiation among scientists, and state and nonstate actors and their conflicting agendas. Hossain and Mahaffey made a career in public health in Bangladesh, but they struggled to make their expertise and experience count. Taking into account their struggle to gain expert authority and voice, it becomes evident how the making of expert knowledge and of experts themselves is incorporated into practices of state-making and, in turn, how practices of governance influence the making of and use of knowledge and expertise (Jasanoff 2004). In the following chapter, I will go deeper into the infrastructure of decision making as they relate to agenda setting practices in global public health.

Interjection: Casualties of care, March 2011

Rahela was one of the four *ayahs* (cleaner) of the Center in Shatnal. Her bold demeanor, strong voice made her presence felt even before I entered the premise. Later, I came to know that she was possessed. Her second marriage was with a *jinn.*[121] When no one was around, she would talk to her husband.

She was washing clothes by the tube-well. Putting bed sheets in the bucket, she walked away to grab the jar of Jet powder. A blue plastic jar with a black lid was sitting on the window board. She threw some dusty soap powder into the bucket and started to pump the well for water. I could see a yellow-greenish stool stain on a white bed sheet. I could smell it too. A raw and strange smell. A mix of liquid phenyl, Jet detergent powder and diarrheal stool – a scent that was razor-sharp. So were her probing questions.

: You don't look like a foreigner, but you are a foreigner, right? At this overripe old age of 35 you are still unmarried and traveling alone!

: Oh! Our rotten life is so exciting for you. You [research] people keep coming back. Keep coming back. There is no end to your research curiosity. Today it's about our poop. Tomorrow, a new questionnaire on women's fertility. What do you want?

: What are your research questions?

Flabbergasted, searching for words and answers, I stammered. Rahela took the bed sheet out of the bucket and began to scratch the yellow stain with a brush, poured some water on the stained area.

: These stool stains are stubborn.

[121] In Islamic theology *jinn* are said to be creatures with free will, made from smokeless fire by Allah as humans were made of clay, among other things. According to the Quran, jinn have free will, and Iblīs abused this freedom in front of Allah by refusing to bow to Adam when Allah ordered angels and jinn to do so.

: Can you recommend the head office [ICDDRB] to raise our salary. How can we live on tk.2200 (USD28.16)?

From the front room of the Center, Dijen Sen yelled, “She is not from the head office. She is a journalist, stop harassing her.” Then he called me, “Shangbadik apa (Journalist sister), tea is here. Let's have tea, I can tell you more about the Center.”

The other ayah walked me to the front room, and served us tea and biscuits. We had to walk across the ward to reach the front room. I could see, out the corner of my eye, a child lying on the bed hooked up to intravenous saline.

I was never able to have a full conversation with Rahela. My fieldwork was interrupted by my mother’s illness. Eleven months later, when I returned to the Center in Shatnal Rahela was not there. The basic facts of her life were related to me by her colleagues.

She was from an ordinary everyday poor family. Her parents arranged her marriage to a mentally unstable man. She had her first period at her in-laws house. A few months into her marriage, her husband went to see a *Jatra* (folk drama) and chose to join the actors’ troupe. He never returned.

How Rahela finished her primary education and attended high school is a mystery. She has worked for the Center in Shatnal since its inception. She lived her life in this center, cleaning the bed sheets, washing the floor, making saline. At night, she attended patients, administered intravenous saline to the patients. She knew the network of veins hidden in arms. She was the only one in the Center who could find a usable vein on an extremely dehydrated diarrhea patient.

A few months after I met her, Rahela fell critically ill and left the Center for Narayanganj No one knows for certain, but they heard that she may have died shortly thereafter from an undiagnosed illness.

“She had the nasty habit of chewing tobacco with betel nut leaf? May be she died of oral cancer,” declared Dijen Das.

She had a rusty, somewhat effeminate presence. She is not always fondly remembered. When the male community health workers are not around, the other *ayas* whispered among themselves that Rahela's *jinn* husband still lives in the Center. She is remembered with a strange fear.

PART III THE REGIME OF GLOBAL BIOPOLITICAL SOLIDARITY

> Today, Matlab faces a larger existential challenge. In Matlab, 80 percent of deaths are now from noncommunicable chronic diseases like diabetes, heart disease and cancer. It is a different kind of challenges since noncommunicable diseases tend to persist for years and treatment is often very expensive. This poses questions for the center's future work in Matlab. Should it shift focus to noncommunicable diseases although its expertise is in diarrheal illness and diseases associated with poverty? The question now is: are we still doing relevant research that the world is demanding?"
>
> Dr. Peter Kim Streatfield, *The New York Times*, November 27, 2014

The epidemiological shift towards non-communicable diseases creates a rhetorical crisis for the ICDDRB. In the last two decades, incidents of ischemic heart disease and stroke rose by more than 400 percent and 200 percent respectively. The number of deaths from diabetes also rose by more than 200 percent in the same period. [122] The ideological attributes of ischemic heart disease and diabetics are very different than that of cholera. In the context of Bangladesh, non-communicable diseases historically not linked with mass laboring class. Therefore, the rising death from non-communicable disease delinks poverty and disease from one another, it creates a crisis in discursive constitution of the 'public' in public health. In order to reconnect the momentarily broken tie between poverty and diseases of public concern, the non-communicable diseases are brought under the epidemiological category of "life style" disease. However, in the context of Bangladesh, where the majority of population earning their bread from labor intensive

[122] Proceedings of the Annual Scientific Conference of ICDDRB (ACSON), 14-17 March 2011, Dhaka, Bangladesh.

work the co-relationship is not easily translatable as commonsense knowledge.[123] In my observation, the ICDDBR is exploring to resolve this existential challenge in two ways: firstly, to create a narrative of chronic diseases as a problem of financial crisis; and, secondly, to reinforce and reproduce the colonial discourses of hygiene to restore old agendas. They organize scientific conferences on health financing system (Chapter VI Financing Health Care) and sponsor the Global Handwashing Day (GHWD) (Chapter VII Saving Lives with Soap) In this last part of the dissertation, drawing from my ethnographic work at the scientific conference of the Center – ASCOND and GHWD celebration, I describe an emerging regime of global biopolitical solidarity.

[123] Globally discourses of "dual burden" have reestablished the link. "Lack of physical activity" and "tobacco consumption" are often listed as two prime risk factors influencing the rising deaths from chronic diseases. In the countries of Barbados, Trinidad and Tobago, Ian Whitmarsh (2013) shows how chronic diseases assistance programs are relying on these discourses of lifestyle disease and promoting biomedical asceticism. In these programs, a chronic disease patient is expected to learn and practice to restrain her bodily desire. They are expected to become aware of the danger of over-eating or lack of physical activity. However, in the context of Bangladesh, the discourses of life style disease and over-eating falls short. See, Whitmarsh, I. (2013). The Ascetic Subject of Compliance: The turn to chronic disease in global health. In Joao Biehl (Eds.). *When people come first : critical studies in global health* (302-324). Princeton, New Jersey: Princeton University Press.

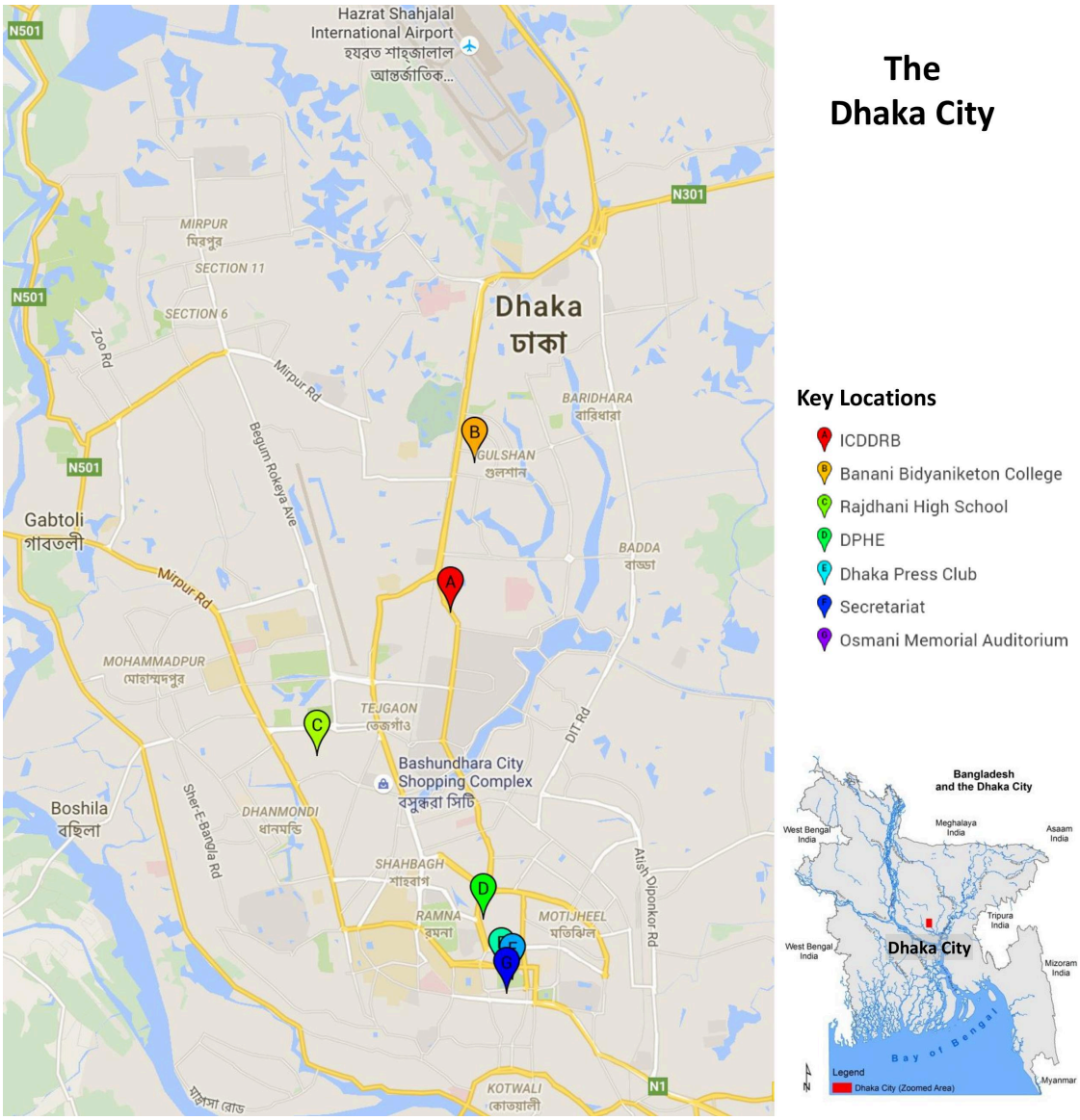

Figure 13 Map of Dhaka city showing all the places mentioned in this part of the dissertation

At the scientific conference, the important global public health voices come to this conclusion that health crisis from non-communicable diseases can only be resolved through an appropriate health insurance scheme. Therefore, they are calling for a global solidarity between public and private sector to save lives through ethical investment of capital. The GHWD is an example of such global biopolitical solidarity and ethical investment of capital in which different sectors have come together and mobilized capital for the "loud and luxurious" celebration of the day. In the chapters put together in this part, I describe the regime of global biopolitical solidarity

as a tool for mapping forms of moral and economic reasoning behind the partnership between different actors and to invest capital in public health. Here the word capital refers to its more classic capitalist form and the term biopolitics is closer to Michel Foucault's use, that is to mobilize solidarity between different actors to save and govern life.

CHAPTER VII: FINANCING HEALTH RISK

Gaining Access to the ASCON

Figure 14 A plenary session of ASCON XIII, Pan Pacific Sonargaon Hotel, March 2011, Dhaka.

Since 1991, the Center has organized an Annual Scientific Conference (ASCON) to disseminate its scientific research and facilitate dialogue between stakeholders, including health care providers, policy makers, government bureaucrats, medical educators and the donor-diplomat community. In the first few years of the conference, its theme was strictly in keeping with the health concerns outlined in Center's research mandate.

In 1978, when the special ordinance permitting the Center to operate in Bangladesh with a degree of immunity normally enjoyed by diplomatic missions was passed, it had amended its

research mandate and redefined the problem of diarrheal disease. Redefining diarrheal disease as "a contributing factor to the larger problems of Bangladesh which include malnutrition, high fertility, poor maternal health, and child survival" allowed the Center to expand its research domain. Accordingly, the first conference was devoted to diarrheal disease. In the years that followed, the conference continued to be the global site for discussing the pathophysiology of diarrhea/cholera and socioeconomic effects thereof.

However, in recent times, thematic interest has shifted from epidemic disease to health systems research. The declaration of Sustainable Development Goals (SDG)[124] encouraged this interest in the scientific development of new models of health services rather than "just studying disease."[125] The theme of ASCON XII (2009) was "Health System Research: People's Needs First," and at the ASCON XIII (2010), a former executive director of the Center further emphasized, "We are never interested in just research, research for research's sake. That is what so special about us. We want our knowledge to translate into action, into methods, models for public health reforms."

Participants fondly remember the 2010 conference as an epic moment of translating knowledge into action. The Center divides its attention equally between knowledge production and translation. Many participants described this balanced interest and investment in translation as one of the unique qualities of the Center. Occasionally, the conference is also a place to negotiate future public health activities. One of my interlocutors, a public health professional himself, referred to the conference as a place for "agenda setting." In an email notifying me of

[124] The Sustainable Development Goals (SDGs), officially known as the "Transforming our world: the 2030 Agenda for Sustainable Development." These are an intergovernmental agreement and set of aspiration Goals with 169 targets. These goals are contained in paragraph 54 of United Nations Resolution A/RES/70/1 of 25 September 2015.

[125] "Than just studying disease," is a phrase that is commonly used by the expert members of the Center. They use it to make a distinction between them and any other scientific research center globally.

the conference, he wrote that I should consider attending the conference if I was interested in knowing when and how cholera/diarrhea had become an addressable, even solvable, problem while tuberculosis or respiratory diseases go comparatively neglected. He added that the conference would possibly reveal the focus of the public health actors of Bangladesh in the post-MDG era. His advice proved fruitful. How practices of agenda setting and knowledge translation have negotiated the ever certain-uncertain status of cholera/diarrhea in contemporary public health programs of Bangladesh became a central focus of this dissertation project.

To me, the conference was significant because it made a particular moment from the formation of global (public health) civil society visible. In an earlier chapter, I discussed how becoming an expert involves a struggle to become part of a global civil society with access to the infrastructure of definition (Chapter VI: Making an Expert). To repeat part of that argument, this infrastructure is partly constitutive of a series of events. In the mind of an aspiring public health expert, these events are hierarchically organized. Within that schema, the ASCON's status is paramount. For public health professionals, participation in the conference opens up the possibility of entering a hegemonic space in which future priorities of public health are debated, negotiated and defined (Figure.12).

Knowledge translation, the term used by the former executive director, is never neutral. Rather, it is tied to the political projects of global governing bodies. The shift in the conference's theme from the pathology of diarrhea to health systems is not incidental. The growing interest in inventing a health insurance model for Bangladesh aligns with the United Nations' (UN) implicit approval of market intervention in health care. The approval came with the unanimous adoption of Universal Health Coverage (USC) in the UN's General Assembly that recognized a gap in the

health system financing and invited "to strengthen the multisectoral national policies." [126] Public health as a field of international and national action has always been multisectoral. It involved at least three different bodies: aid agencies, national government and NGOs. The particular emphasis on multisectoral policy here is to include market forces as a player in the field of public health. In the context of Bangladesh, this process recast the state as an enabler, whose role it was to create an environment conducive to market-driven, profit-oriented public health services (Qureshi 2015).

Mapping this shift in the focus of public health programs in Bangladesh from pathological concerns to health financing schemes, I show that this movement and mobilization around universal health coverage is giving shape to a new form of cosmopolitan statehood in which the state's legitimacy is embedded in its willingness and attempt to marketize public service provision (Beck 2006; Qureshi 2015). In other words, the introduction of a model like the UHC is not simply about privatizing public health but also incorporating the logic of capital and profit into state practices (Rose 1996). The proposed creation of a context-specific health insurance model for Bangladesh brings life in poverty into the insurance economy.

Luis Lobo-Guerrero (2011) suggests that insurance functions as technology for capitalizing life — effectively putting a price tag on it. His claim is apt for a developed biopolitical state in the West. However, any making of a biopolitical state or biomedicalization of society is already ruptured by design in Bangladesh (Chapter IV Rebirth of the Clinic). On the one hand, the rapid development of private sector health care facilities and mushrooming diagnostic centers have influenced people's perception of quality health care and engendered

[126] United Nations General Assembly Resolution, Global Health and Foreign Policy. Agenda Item 123, Sixty Seventh Session, 6 December 2012. Retrieved from http://www.un.org/ga/search/view_doc.asp?symbol=A/67/L.36&referer=http://www.un.org/en/ga/info/draft/index.shtml&Lang=E

mistrust towards state facilities. On the other hand, the rising number of deaths from non-communicable diseases proved the primary health care facilities inadequate.[127] In this context, the local subscribers to this new global commitment to improve the health of the poor through insurance mechanisms pointed fingers at the failure of state-financed health care. The foremost public health concern today, according to the conference participants, is to reduce the "out-of-pocket health care expenditure of the poor." In the post-Millennium Development Goal (MDG) era, managing public health becomes inextricable from managing and protecting the household economy. The USH model aims to introduce a new economic behavior: paying an insurance premium to cover the future health crisis. In this transitional moment, as we are transitioning from the post MDG era to a future of achieving SDGs, curing our ills involves transforming beneficiaries into consumers of public health services.

Agenda-setting Practices

In my longitudinal ethnographic research, I participated in three iterations of this event in different capacities (2007, 2009, and 2011). The conference venues were invariably very elite spaces. Five star hotels were socially unfamiliar space for me, if not for development experts. The opening event of the ASCON XII (2009) at the Radisson Hotel caused discomfort even among the regular participants of these events. Despite my repeated return to the conference, the race, class and gender dynamics of the room always remained unsettling. Sitting uncomfortably among public health experts, particularly at the grandiose inaugural events of the conference, I thought often of Sandra Harding's early feminist critique of inherently exclusionary practices of modern science (Harding, 1986), "science today serves primarily regressive social tendencies;

[127] In Bangladesh between 1990 and 2011, the leading causes of death were stroke, ischemic heart disease, and chronic obstructive pulmonary disease -- these accounted for 34 percent of all deaths. The trend of increased number of deaths due to non-communicable diseases in Bangladesh is consistent with global trends. See, El-Saharley et al., (2013), *Tackling Noncommunicable Disease in Bangladesh. Now is the Time*. Washington D.C: World Bank.

and the social structure of science, its modes of defining research problems and designing experiments, its ways of constructing and conferring meanings are not only sexist but also racist, classist, and culturally coercive (p.9)."

The way an issue with my conference registration was resolved in the end attests to Harding's observation. In the morning of the conference, I arrived early at the venue to resolve the issue. Two women in *Jamdani Sari* were sitting behind a table by the entrance, right next to the grandiose metal detector greeting the conference attendees, helping them find their name tags and handing them conference materials. I showed them the print-out of a confirmation email. With a stern face they told me, "Your name is not on the list, we cannot do anything. Even some foreigners failed to register!" After much imploring, one of the women allowed me to talk to her supervisor. A middle aged Bangladesi man in his three-piece suit looked at the email and in a very American accent asked me in English, "So, you go to University of North Carolina - Chapel Hill? Do you work with Mike Shawn? Many of his students worked with us [the Center]." My response deemed unnecessary, he already began to walk towards the welcome desk. The enduring structure of privilege and entitlement that cut across race quietly negotiated for me. In this instance, foreigner/white privilege was certainly at work, my affiliation with a foreign university finally granted me access to the conference. As I walked away from the metal detector after collecting my name tag, for a fleeting second I thought of Miranda Fricker's work, *Epistemic Injustice* (2007). I felt I was wronged in my "capacity as a knower or as an epistemic subject" (Fricker, 2007, p.2), in what was, ostensibly, my own land.

Eight hundred participants, including 100 foreign dignitaries, gathered at the ballroom of the Pan Pacific Sonargaon Hotel for the inaugural ceremony. Distinguished dignitaries included the heads of World Bank and World Health Organization in Bangladesh. When I looked at the

seating arrangement of the ballroom, the spatial hierarchy between public health experts was plain. The audience was clearly segregated. The front row-seats were reserved for delegates from international aid organizations and foreign diplomats. Participants from different departments of the government had designated areas to sit. The senior health bureaucrats could only sit at the front-left corner of the room.

The conference is a site where emergent forms of public health bureaucracy become recognizable. Normally, the Center maintains its critical distance through the proverbial postcolonial bureaucracy of the continent. ICDDRB staff are punctual in their public appearances and brief in their public speeches. However, at these events, the Center has strategically incorporated government bureaucratic habits into its practice. The meticulous management of time of the Center becomes compromised here, as the organizers await the Health Secretary to inaugurate the conference, or anxiously bite their pens when the Finance Minister exceeded the time allocated to him. This conference is one of the prescribed moments in public health bureaucracy in which all actors negotiate, often in tense and/or sardonic exchanges, their divergent, utopian vision of health as public good (Qureshi 2015). The definition of health risk and future goals of public health interventions are dependent upon these negotiations. Therefore, the authority to manage public health is now consolidated through gaining access to the means of defining the problem of public health and designing the solution for it in Bangladesh (Beck 1986, 2006).

In the remainder of this chapter, I draw on my ethnographic experience at the ASCON XIII (2011) with occasional reference to previous years to describe this infrastructure of definition and inequitable access to it. [128] By introducing an insurance model of health care

[128] In his seminal work, *Risk Society* (1986) Ulrich Beck coined the phrase 'relations of definitions' to encapsulate his view of the way 'risks' are socially constructed through scientific knowledge in which some people have a

known as the UHC (Universal Health Coverage), the Center along with other global actors set the priorities of public health management in Bangladesh, shifting the focus from disease prevention to health financing.

Introducing the UHC Model

In general, public health professionals in Bangladesh, particularly at the NGO sector, referred to the Anti-Globalization March in Seattle (1999) and the rise of "Another World is Possible" global movement to emphasize that "things have changed in the development sector. The decision making bodies now respect local opinion. It is no longer a top-down process."[129] This sentiment was echoed when I was talking to a member of the conference committee during a tea-break. He sees the conference as part of a process to build local ownership of future initiatives, "the tremendous success of MDGs is precisely because of this inclusionary decision making process. From grassroots organizations to national governments all were asked to describe "the future we want."[130] I remained intrigued by the ways the traditional apparatus of global governance, including the UN, World Bank or the Center have adjusted to the post-colonial critique of its top-down exclusionary practices and how much of its vocabulary is now informed by and a response to anti-globalization movements. However, there is an inherent contradiction in the words of the Convener; it exposes the despotic nature of this inclusionary practice (Cooke

greater capacity to define risks than others. In 'risk society,' relations of definition are analogous to Marx's relations of production and include the rules, institutions and capacities that structure the identification and assessment of risks.

[129] This is a common sentiment among the Bangladeshi development experts working in the NGO sector. This particular excerpt is from an interview with a staff of WaterAid, Bangladesh.

[130] On the eve of the New Millennium, the Secretary General of the UN launched a report, "We the people: The Role of the United Nations in the Twenty-First Century." The report was a result of a two years long consultation process involving representatives of over 1,000 non-governmental and civil society organizations from more than 100 countries. During this consultation process, NGO representative were given opportunity to share their vision of future.

and Kothari 2001). There is an implicit distinction between those who own the means of generating future goals and those who gains access and become part of the process to ensure local ownership of globally defined models. The turn towards UHC is instructive in this regard.

In 2010, WHO published a report illustrating the importance of sustainable health financing entitled, *Health System Financing: The Path to Universal Health Coverage?* In 2012, all major global public health events including Mexico City Political Declaration on Universal Health Coverage (2012), the Bangkok Statement on Universal Health Coverage and the Tunis Declaration of Value for Money, Sustainability and Accountability in the Health Sector adopted the recommendations published in the report. Finally, in December 2012, it was unanimously adopted at the UN General Assembly to reemphasize health as an essential element of international development. The UHC (Universal Health Coverage) model was adopted to promote it "as a solution that can strengthen health systems, raise revenue for health care, and improve social risk protection in low and middle-income countries."[131] A demand-side model is being advocated by the World Bank and other multilateral and donor organizations to replace the nominal Primary Health Care systems (supply-side model) that have commonly provided services to the people in poverty in post colonial nations, which have arguably been unable to assure sufficient care and financial risk protection.

Health insurance is not a novel concept in Bangladesh. A few national NGOs have been experimenting with micro health insurance schemes by making health premiums mandatory with their micro-finance weekly loan repayment schedules. In Bangladesh, the government's response to UHC has been far more welcoming than it was for the MDGs because in effect it would

[131] In a roundtable discussion on the UHC model, Abbas Bhuiyan, Deputy Executive Director of ICDDRB described the model as quoted above. See, Universal Health Care Bangladesh Perspective. (February 12, 2015). *The Daily Star*. Retrieved from http://www.thedailystar.net/universal-health-coverage-bangladesh-perspective-64453

transfer costs of health care to private sector. A month after the conference, at the sixty-fourth World Health Assembly, the prime minister of Bangladesh, Sheikh Hasina declared her plans to achieve universal health care by 2032. During the national election of 2013, her party manifesto, entitled *Digital Bangladesh*, also included the promises of ensuring financial risk protection of illness, a key component of the UHC. The epidemiological shift in burden of disease from diarrhea/cholera to respiratory and heart diseases and a significant increase in the out-of-pocket health related expenditure also prompted a shift away from the Primary Health Care (PHC) model. Therefore, these UN goals and standards have an inherent capacity to contextualize and recontextualize.

Local conference participants interpreted and engaged with this standardized global model of public health differently, depending on their ideological orientation and the public health regimes to which they subscribed (Digital Health, Projects of Saving Lives, and Privatized Health). The UHC is a global form, a quality that possesses "a distinctive capacity for abstractability and movement across various spheres of life" (Ong and Collier 2009, p. 11). As a global form it circulates through the health care world, as a proposed ideal used to approximate response by selecting and accentuating elements of access, risk and financial protection. It is a global public good that incites certain responses and actions. I now discuss these contrasting responses to and interpretations of this global form.

Financialization of Disease

Little to no time was spent in the inaugural addresses on experience of illness *per se*. The uneasy co-existence of infectious and chronic diseases in various forms of numerical representation was evident, but it was not directly addressed. With expanding interest in the development of health systems, this conference examined, discussed and negotiated the problem of public health

through the lens of newly proposed health service delivery model – the UHC model. In this model experience of disease is only measured in terms of economic loss incurred during the time of illness. The conversations revolved around the alarming increase in "out of pocket expenditure." I noticed a departure from a disease-centric narrative to define the problem of public health in Bangladesh. Within this exploration, any remaining traces of the lived experience of disease quietly vanished from the formulation of the problem (Poovey 1995).[132]

The keynote speaker of the event, the president of the Public Health Foundation of India, Dr. Srinath Reddi, issued a call for global solidarity, positioning concern for health as a transnational virtue (Dezalay and Garth 1996; Rabinow 2009; Gourevitch, Lake and Stein 2012). In his speech, he called for "solidarity within society and cross country solidarity. That solidarity is one of the most enabling attributes of advancing human civilization. One of the main principles of universal health coverage (UHC) is inclusion and solidarity." Reddi's repeated emphasis on global biopolitical solidarity, interlaced with classic colonial concepts like "human civilization," resonated in the hall as other speakers at the event echoed his words. In the moment, it was unclear to me what the foundation for this global solidarity would be.

While later transcribing the speech and listening to it minutely, I realized that Reddi was insisting on globalizing a particular ethical configuration for public health (Collier and Ong, 2005), a passionate ethical pursuit for delocalization of financial responsibilities of care (Beck 1992, 2006). It was a call for a multilateral public funding of health care, the burden of risk and

[132] In *Making a Social Body* (1995) Mary Poovey tries to make sense of the emerging "mass culture" in Victorian England. Poovey's argument rests on the contention that the potential for social homogeneity was brought about through the reification of an abstract concept of the social body. Throughout the book Poovey presents a complex exploration of a variety of texts and writings of notable scholars like Thomas Chalmers, Edwin Chadwick, and James Kay-Shuttlerworth. These texts are concerned with the management and representation of the social domain. Poovey asserts that the development of techniques of abstraction and representation contained within these texts, such as statistical depiction of average mortality linked to localities, served to breathe life into this imagined social body. See, Poovey, M. (1995). *Making a social body : British cultural formation, 1830-1864*. Chicago: University of Chicago Press.

responsibilities of care must be reworked. The foundation of this solidarity is built on the delocalization of the Bangladesh government's responsibility to finance health care of its citizens (Beck 1992, 2006). As a prominent voice of the global (public health) civil society, Reddi was calling for financial commitment from the global governance institutes to share and organize financing for health care system of Bangladesh, and similar places where biopolitical state is yet to unfold in its desired shape and form. At stake is the unspoken assumption that the national leaders lack political commitments and the state economy and apparatuses cannot support this model of health care.[133]

Rehman Sobhan, the second keynote speaker of the event and an eminent development economist of Bangladesh and the founder of the Center for Policy Dialogue (CPD), spoke of these national economic and infrastructural barriers to equitable access to health care, suggesting that the solution was the unburdening the state. Demystifying the sanctity of the non-profit sector, he called for multi-sector investment to improve the quality of health care in Bangladesh. In the past, the political legitimacy and moral authority of the NGO sector in Bangladesh was dependent on its distance from the corporate sector. Sobhan's speech, however, was a clear departure from that history.

> Factual evidence tells us that the main challenges facing health care delivery in Bangladesh are absenteeism, corruption, shortages of doctors/nurses, inefficiency and mismanagement. An agenda for correcting these health disadvantages could include universalizing health care and a careful scrutiny of the existing public health system. In order to make it effective and equitable, we have to share the responsibilities; we cannot leave the task to the government or some NGOs. It is our job. We need to make the sector income-generating, and self-sustainable. For that matter, we need to break away from these puritanical boundaries of public,

[133] Historically the universal health care has originated in the welfare states of the early nineteenth-century Europe. The first move towards a national health insurance system was launched in Germany in 1883, with the Sickness Insurance Law. Industrial employers were mandated to provide injury and illness insurance for their low-wage workers, and the system was funded and administered by employees and employers through "sick funds", which were drawn from deductions in workers' wages and from employers' contributions. See, Derickson, A.(1994). Health Security for All? Social Unionism and Universal Health Insurance, 1935-1958. *The Journal of American History*, *80*(4), 1333–1356.

> private and non-governmental sector and develop competitive strategies. Health is a legal right of the resource-deprived population. To achieve that goal, we shall stand united.

The malleability of these boundaries replaces the concerns of state-subsidized public health with the goals of developing income-generating programs. This change in international aid is widely noted and regarded as a shift from loan/gift to investment/capital (Eyberl and Leon 2005). To understand this "new architecture of aid," I have inserted the unspoken binaries in Sobhan's speech:

> We need to make [the loss-making public health sector into] income generating and self-sustainable. For that matter, we need to break away from these puritanical boundaries of public, private and non-governmental sector and develop competitive strategies [as opposed to the concessional economy].

Sobhan relies on market as the instrument of efficiency to transform a loss-making public sector into profit-making one.

Reading Reddi and Sobhan's speeches together, it is evident that the inclusion of the UHC model for global public health is in some ways a matter of ethical movement of capital (Mosse 2005). With his uneasy combining of these sectors, Sobhan transfers the responsibility for providing health care to the private sector into its circle. However, this new distribution of responsibility is not a call for privatization of the sector, but a reorganization of the contractual relationship between the state and its citizens. In this conference presentation, the state is absolved from its direct obligation to provide healthcare, and is recast instead as an enabler of the 'right environment' in Bangladesh (Cammack 2006; Bear and Mathur 2015). As members of the global public health civil society, Reddi and Sobhan promote the marketization of health care provision (Taylor 1990; Kaldor 2003; Katz 2006; Buckley 2015).

A few months later, when the Center organized a roundtable conversation on "Universal Health Coverage: Bangladesh Perspective" in collaboration with BRAC and the Daily Star, I met

with some of the speakers from the conference. It was clear that the participants understood disease as a problem of unplanned expense. The key stakeholders discussed the viability of a community-based health insurance model to provide health care and financial protection to the people in poverty. Considering the economic hardship of the target group in this hypothetical scheme, the health insurance premium would be subsidized. The private sector investment would provide the initial capital, and the government and aid organizations would support the scheme by insuring the premium subsidy. The idea put forth in the roundtable, as well as at the conference, is to use the market to spread out the financial risk among global and local investors and insurers. Participants discussed in detail the multiple compositions of insurance and reinsurance along with other sophisticated financial instruments and engaging in a kind of financial experimentation (Erikson 2015). The management of public health problems in Bangladesh is now understood primarily within the logic of investment and finance, as the growing demand of actuarial scientists in NGO sector public health programs proves. This coupling of financial knowledge with public health future is what Susan L Erikson (2015) called in the course of the recent Ebola outbreak "the financialization of disease." This is a process equally at work in the management of public health future in Bangladesh. In the following section, I describe the techno-nationalist response of the government to the call for adopting the UHC model of health care.

Making Public Health Infrastructure Mobile

In line with their vision of Digital Bangladesh, the government interpreted health care access as a matter of advanced communication technology. Earlier in this dissertation, while introducing the regime of digital health, I discussed how Awami League, the political party in power transformed the question of public health into a matter of access. A techno-nationalist vision of

public health seeks to make public health infrastructure and the delivery of clinical medicine more mobile. At a plenary session of the conference, the Health Secretary of the Ministry of Health and Family Welfare illustrated the government's understanding and vision of achieving health for all. In his view, the current government is in a particularly privileged position for achieving this goal, since the past history of the Awami League-led government demonstrated its commitment to an all-inclusive public health program.

Figure 15 At the ASCON XIII, in a plenary session titled, "Tracking progress towards universal coverage with equity," the health secretary of the Ministry of Health and Family Welfare gave a PowerPoint presentation. This slide later appeared and reappeared at different workshops and government consultations on National Health Policy.

During a session on the UHC model for Bangladesh, the secretary claimed that *Bangabandhu*, the first prime minister of Bangladesh and the founding father of the nation, had originally created the universal health care model. Internalized sycophancy blinded him to the broader history of universal health care, a fact that annoyed many in the audience judging from

their scowling faces. The first slide of his PowerPoint presentation included a handwritten letter by Bangabandhu. The handwritten part of the slide was blurred and indecipherable. According to the health secretary, the blurred handwriting described a novel vision of public health:

> The father of the nation, Bangabandhu Sheikh Mujibar Rahman had a radical vision of public health. He began to actualize an idea that did not even exist in developed nations. Had he not been brutally assassinated by treacherous anti-state elements, Bangladesh would have achieved universal health care. Now, we have our prime minister, and her Excellency is equally devoted to people's health. We have already digitized the health system, we have introduced telemedicine. Now a doctor's advice is at your fingertips.

"A doctor's advice at your fingertips" – is a popular expression among the public health bureaucrats. However, the expression was already in currency, long before the debates around the UHC model began to surface. The appeal of making infrastructure mobile to deliver health care to the remote corners of Bangladesh is tied to the rapid growth of the telecommunication industry in Bangladesh. In 1999, the government initiated its first telemedicine program in Bangladesh. Following the rise and success of *Grameenphone,* a telecommunication service provider first signed a memorandum of understanding with the MOHWA to deliver the public health messages to its subscriber. These early initiatives later expanded to include maternal health care in the rural Bangladesh.

The infrastructure to disseminate health information became vital to the government when it enacted the Right to Information Act (2009). Global governing institutions' increased interest in improving health reporting also contributed to this turn towards information technology in health care. Finally, the appointment of the Prime Minister's son, Sheikh Wazed Joy, as the special advisor to the Ministry of Telecommunication further transformed health into a matter of information technology; his investment in the telecommunications industry influenced the programmatic direction

of the health ministry. Cell phone technology, in this context, becomes answer to the pervasive problem of absenteeism and shortage of doctors/nurses in rural Bangladesh. The health secretary continued:

> The honorable advisor's [Sheikh Wazed Joy] Health Market Innovation approach made it possible for a doctor's advice to be available at the tip of the finger. In Bangladesh, 4,536 unions are now equipped with computers, printers, digital cameras, scanners and internet modems to run the Union Information and Service Centers (UISCs). At the USCIs, Skype-based telemedicine services have been started on a pilot basis. Doctors, sitting at the MIS office, are giving medical consultations every working day. People in rural are really welcoming the service and now the telemedicine service is one of the most popular value-added services in the respective UISCs.

"Health Market Innovation" – another new term thrown at me. While listening to his speech, I wrote it down in my notebook and drew a question mark beside it. Sitting next me, Sangeeta Arora, a public health scholar from India whispered, "HMI is neither new nor an invention of your prime minister's son. There is a Center for Health Market Innovation in Washington that works with the private sector to improve the way practitioners deliver care, or the way consumers seek care." Then, she wrote next to my question mark, "It is a Bill and Melinda Gates Foundation-funded program. Pretty hip."

The boundary between public and private sectors appears to be disappearing again. The indirect proposition to develop a market-driven public health program is neither novel nor grounded in the local realities of governance. The delocalized ethics of care in Reddi and Sobhan's vision of the UHC takes instrumental form at the local, rather than national level. The government approached the adoption of UHC model as a challenge of building unique hierarchical semi-centralized telemedicine network architecture. This collaboration between ministries of telecommunication and heath allowed the movement of "private" capital from Dhaka to the smaller town. In the other words, the local health complex transforms into a space

of direct investment for cell phone companies. I will return to the speech of the health secretary one more time to note how growth of the telecommunication industry is essential to ensuring equitable access to health care:

> Our citizens receive free health advice from doctors working in government health centers. For this a mobile phone has been given to each district and sub-district hospital of Bangladesh. The numbers of these mobile phones have been publicized locally. These numbers are also provided on the website of Directorate General of Health Services. Doctors receive calls on these numbers 24 hours. Local people can receive free health advice by calling these numbers without needing to come into hospitals in person. This service has created the opportunity to get medical advice for rich or poor people alike, particularly those living in rural areas. Medical advice is now instantly available no matter whether it is late at night, a medical emergency or far from the hospital. Then, with limited man-power and resource it will be possible to provide better treatment to the patients coming there. Thus, patient satisfaction will be increased.

The problem of disease is displaced by that of access, and geographical distance is overcome through technology. By shifting attention and reorganizing priorities from disease prevention and control to health financing schemes, from PHC to UHC, and mobilizing policy-level attention into developing a context specific UHC model carries the risk of dispossessing the public of the bare minimum public health services available to them (Qureshi 2015). Reading the speech of the health secretary in the context of the everyday exchanges at the Center in Shatnal, I share Susan Erikson's (2015) anxiety of a new kind of risk: "a public health risk of yet unknown magnitude and scope from this emerging global health driven by investors' expectations of return."

Financing Our "Out of Pocket Health Care Expense"

In 2011, the members of the global (public health) civil society approached disease as unexpected expense, whereas the government bureaucrats defined disease as problem of access in Bangladesh. The debate and effort around translating the UHC model for Bangladesh partially contributed to the financialization of disease and a new mechanized understanding of health. The

shifting focus from infectious diseases, under-nutrition and conditions of childbirth to non-communicable chronic diseases (NCDs) raised questions about the adequacy and efficacy of the current model of primary health care and prompted the emergence of a new rationality for health care. The anticipated change in the aid flow from MDG-oriented projects to ethical investment in building future financial preparedness for illness contributed to this particular understanding. Illness and suffering become subtexts to the evolving regimes of public health.

In the title of this concluding section, I borrowed from Megan Vaughan's rhetoric. In her her historical account, *Curing their Ills* (1991) she focused on how biomedical discourse constructed "the African." Concentrating on British East and Central Africa, Vaughan shows that in the early period of colonialism, British medical personnel attributed many diseases to Africans' racial makeup. Similarly, I have illustrated how in the production of a totalizing narrative of health of the population, out pocket expenditure in health care becoming more prominent than the experience of illness itself. However, in this chapter, my main emphasis is not on the discursive construction of Bangladesh. Recording the shifting interest toward a context-specific UHC model, my analysis rests on the various responses to the model of UHC. These responses generated a mechanized understanding of disease and instrumental logic of health care.

The Center plays the crucial role of introducing the idea of UHC through organizing series of events including ASCON, workshops and roundtables on universal health coverage. It *curated* the conversations and debate by representing longitudinal data on the problems that plagued the existing health system. All other stakeholders participated in this conversation by design. The public health bureaucrats' proficiency and level of engagement contribute to the cosmopolitan/transnational visibility of Bangladesh. Aid and governmental resources are

mobilized and expert attentions are redistributed to invent and implement a new health system that subscribed to the idea of UHC. The hegemonic relations of definition between actors enable the Center to design, determine and govern the future of public health policy agenda (Beck 2006).

The process I describe bears affinities to what Marx called simple or general abstraction. "The most general abstraction," as described by Marx, "arises on the whole only when concrete development is most profuse, so that a specific quality is seen to be common to many phenomena or common to all" (Marx 1932 cited in Poovey 1995, p.5). By making universal health care the goal of the public health agenda, this process of abstraction recasts disease as a problem of access and economic loss. In 2011, when projects of improving the quality of life in Bangladesh are invested in calculating the insurability of life in poverty and relocating resources to invent new models, the process of abstraction ends in creating an aggregated understanding of disease. At the same time, it involves the banishment of everyday concerns of health care providers. Abstraction involves risk of dispossessing the target group of this new model of the bare minimum public health services available to them. In 2011, the project of curing our ills evolved investigating the marketability of health service provision.

Interjection: Crossfire, March 21, 2011

On the second day of the ASCON XIII, around mid-afternoon, I received a call from Jahanara, Israfil's first wife. She asked if I had heard from him in the last few days.

Nine years ago, I met Israfil during my first trip to Matlab. He was a young and unsuccessful political cadre. He was well connected with the local upper-class network. Through him, I was introduced to local chroniclers and photographers whose philosophies shaped my voice as a storyteller and my perspective as an ethnographer.

Israfil's career as a political cadre never really took off. Being kind and effervescent did not help him collect *chanda* (compulsory donations from shop-keepers) at the bazaar. Eventually, he returned to fishing. Before sunrise, he would leave the house with his fishing net. On the days when the Meghna was kind to him, he would catch basketful of fish. A lucky day meant a trip to Narayanganj. On one of those fortunate day, he met Rojina. Their love story always began with this vivid description of a rather uncommon attribute of femininity, "She was such a *Jangli* [wild beast]." Israfil and Rojina got married in Narayanganj.

Jahanara, the first wife, and Rojina, the second wife, had never met, but they knew of each other. Their relationship was defined by swearing and indifference.

Jahanara's call was not a surprise to me. It had happened before. Israfil would come to Rojina in Narayanganj and turn a deaf ear to his family in Matlab. Jahanara was really calling to register her anger and annoyance, not to report her husband missing. Annoyance had always been her armor with which to navigate the precarity of her marriage.

Six days later, I received a text from Rojina "Come to Shariatpur Thana."

I followed a piercing lament. I walked by the shoreline. The stench of something rotten made it nearly impossible to breathe. Holding my breath, I moved closer. Two women were beating their breasts, wailing, cursing each other, asking Allah for an explanation. There lay a dead body. Face down. Arms outstretched, and bent at the elbow.

Jahanara and Rojina positively identified Israfil. Six days dead, decomposed and swollen, Israfil's body bore marks of at least three bullet holes.

People began to circle us. Voices from the crowd murmured, "Maybe he was killed in crossfire." I tried to remember. Had there been any news of crossfire in *Chandpur Barta?* His death was shocking, but not the way he died. He was just one of 3000 death dubbed "crossfire"

killings (during an exchange of gunfire with local police).[134] Israfil's brother signed a police ledger. In exchange they gave him some papers and released the body. Inconsolable, Jahanara accompanied Israfil's body to their village. Two police constables ordered the crowd to disperse – *tamasha shesh, spectacle is over*.

I began to walk away from the crowd. Ordinary death following an ordinary crime was distracting.

[134] According to a local human rights organization, since the formation of Rapid Action Battalion (RAB) in 2003, approximately 3000 civilians reported dead in extra-judicial killing. See, Ahmed, R. (2011). The Gift of a Death Squad. In her *Tortured Truths*. Dhaka: Drik Books.

CHAPTER VII: SAVING LIVES WITH SOAP

Dedicating a Day of Action: October 15, Global Handwashing Day

> The Global Public-Private Partnership for Handwashing is a *coalition* that brings together the expertise, experience, ideas, resources, and reach of the public and private sectors around the world to promote *handwashing with soap*. We recognize hygiene as a pillar of international development and health as an easy, effective, and affordable "do-it-yourself vaccine" that prevents infections and saves lives.
>
> - Mission statement of the Global Public-Private Partnership for Handwashing

In the calendar of international development, the year 2008 was defined as the International Year of Sanitation. That same year, at the annual World Water Week in Stockholm, a Global Handwashing Day (GHWD) was initiated to mobilize support for handwashing with soap. Later, the UN General Assembly appointed the exact day and month. I become curious about the story behind the date – October 15.

Reckoning with the UN history of decade-naming, I thought to myself on this day in history, surely an outbreak of cholera must have taken the lives of innocent children somewhere in "the tropics." In search of a compelling story, I wrote to the Secretariat of the Global Public Private Partnership for Handwashing (PPPHW)[135] and received the answer, "It is rather random. In most places, students go back to school after summer break on this day."[136]

---

[135] Established in 2001, the Global Public-Private Partnership for Handwashing is a coalition of international stakeholders who work explicitly to promote handwashing with soap and recognize hygiene as a pillar of international development and public health. The steering committee of the PPPHW includes Colgate-Palmolive, FHI360, Proctor&Gamble, Unicef, Unilever, University of Buffalo, USAID, Water and Sanitation Program (WTS) and the Water Supply and Sanitation Collaborative Coalition (WSCCC). The resource contributor for PPPHW is Dow Chemical. See, Global Public-Private Partnership for Handwashing. (2015). Who We Are. Retrieved from http://globalhandwashing.org/about-us/who-we-are/

[136] Email correspondence with a staff member of the PPPHW.

The periodizing practices to name a decade, month, or day, to divide temporalities based on future development goals, demonstrate the authority of global governing institutes like the UN or PPPHW over national time (Anderson 1983; Beck 1992). Since the independence of Bangladesh, several years were declared an official sanitation year (Perry 2000). The control over means of defining and dividing immediate and long-term temporalities is not just a strategy of interaction between the sponsor, organizers, and the participants of this day, but also a medium of organizing hierarchic power and governance (Munn 1992). Defining time, it unevenly distributes public health attention/agenda/resources across time and space. In this chapter, drawing from the ethnographic experience of attending the global handwashing day for three consecutive years (2011-2013) in Bangladesh, I further elaborate on how a sense of global biopolitical solidarity is evoked in this asymmetrical terrain of public health.

The ritualistic precision with which this day has been observed in Bangladesh repeatedly reminded me of classical anthropological images of ritual and the role of ritual in defining the globality of the event. In the following section, I draw from recent reconsideration of rituals to talk about the authorizing vision of health and hygiene pursued as global (Cannadine and Price 1987; Bloch 1989; Kaplan and Kelly 1990; Bell 1992; Comaroff and Comaroff 1993).[137] In this renewed engagement, "ritual is studied as practice, as a vehicle for all forms of authority" (Kelly and Kaplan 1990). Therefore, I do not rely on the concept of ritual to decode the symbolism

[137] Historically, in the context of ethnographic writing ritual is a pejorative reference as it is classically defined "to mark all that separates rational modernity from the cultures of tradition" (Comaroff and Comaroff 1993, p.xv). In rethinking ritual, colonial fascination with ritual as distant, "traditional" object of anthropological gaze is challenged. In his canonical work, *Rabelais and his World* (1965) Mikhail Bakhtin departed from dominant reading of ritual and ceremonies as expression of structure and power, proposing carnival as alternative space of social engagement. In *Rituals of Royalty* (1986), David Cannadine introduces a set of anthropological and historical studies of "power and pomp" and brought the empirical realities of European histories to the studies of ritual. Along the same line, in this chapter I have analyzed the celebration of handwashing day as ritualized expression of power of the Global Health establishment.

embedded in it; my interest is in "the apt performance of what is prescribed, something that depends on practical disciplines but does not itself require decoding" (Asad 1993, p. 62). My use of the concept is a response to Talal Asad's call for a return to the earlier meaning of ritual as a prescription for action.[138] In this chapter I provide detail description of the ritualized promotion of handwashing with soap, I show how a singular, hegemonic hygiene model of cleanliness is dominating the discourses of public health in Bangladesh.

Competing for a Title, the Guinness World Record on Handwashing

The same year (2008), the Unilever in collaboration with the PPPHW and the Guinness Book of World Records sponsored a competition for the most people washing hands at the same time. Three weeks after the declaration of the day and the competition, an event celebrating the GHWD was arranged at the Banani Bidyaniketon College playground. The ICDDRB along with other aid organizations and local NGOs supported the initiative. Lifebuoy soap was supplied by Unilever and the Center provided red buckets with ICDDRB's logo imprinted on them. To inaugurate the event, the Director General of the Department of Public Health Engineering of Bangladesh (DPHE) joined the gathering; distinguished guests included the Head of Water and Sanitation Program, UNICEF. A motivational speech on hand-hygiene was delivered by a national sports figure. A student from grade five came to the podium to lead the chorus of the national anthem. As they sang, another girl joined her by the flagpole to hoist the national flag. Singing and hoisting followed in matching rhythm. The flag was raised and the national anthem

[138] Talal Asad (1993) in his essay "Towards a Genealogies of the Concept of Ritual," criticizes the way anthropologists have constructed religion and ritual as realms of merely symbolic activity and shows how early evolutionary anthropologists introduced the concept of ritual as symbolic behavior, in other words as a form of practice that called for decoding, for interpretation, especially by an outsider. To historicize the very concept of "ritual," Asad pointed out that in eighteenth and nineteenth century editions of the *Encyclopaedia Brittanica* the term specifically referred to instructions for performing the divine service. See, Asad, T. (1993). "Towards a Genealogies of the Concept of Ritual," in his *Genealogies of religion : discipline and reasons of power in Christianity and Islam*. Baltimore: Johns Hopkins University Press.

reached its final note. Then came the sound of whistle from backstage. At the signal, 1,213 school children reached for their Lifebuoy soap simultaneously, writing the name of Bangladesh in the Guinness Book of World Records. Interestingly, the certificate was issued for the Social Commission of Lifebouy.[139]

The following year (2009), on the east side of Johannesburg, school children from Edenglen and Eastleigh Schools gathered to "smash the record" set by Bangladeshi school children. The recording process was much more formal on this second year of the competition, and Guinness Book of World Records adjudicator Carl Saville even flew in from the UK for the occasion.[140] As soon as Bryan Habana, one of the world's top rugby players, lifted up his hand, a hail of screams followed. One thousand eight hundred and two children washed hands with their heroes. They broke the Bangladesh record.[141]

In 2010, the organizers in Bangladesh made a coordinated effort to return to the stage. An international NGO, Plan Bangladesh, took the lead in organizing the event, while ICDDRB, WaterAid, and the DPHE supported the effort. On the handwashing day, 52,970 school children gathered at multiple locations across Bangladesh to wash their hands with soap and water to break the South African record. In 2011, from two distant corners, in Peru and Kenya, the record was broken.[142] The same year, the Pan American Health Organization (PAHO) also sent an invitation to its member countries to bring the World Record to Latin America. Peru, Mexico,

---

[139] Lifebuoy Social Mission Report, 2008-9. Retrieved from https://www.unilever.com/Images/slp_lifebuoy-way-of-life_tcm244-418692_en.pdf

[140] Email correspondence with the Guinness World Records Ltd.

[141] See, UNICEF. (2010). Soap Stories and Toilet Tales, Global Handwashing Day Edition. Retrieved from http://www.unicef.org/french/wash/files/SoapStories2010_1.pdf

[142] The chronology I present here is rather tentative. In some international health reporting, the case of South Africa is omitted.

and Argentina, in that order, were the countries that brought together the most people to beat the record from the previous year, bringing 7,40,870 people together. In 2015, the state government of Madhya Pradesh, India, managed to seize the title.[143] On October 15th of the previous year, an astonishing total of 1,276,425 children simultaneously washed their hands in 13,196 locations across 51 districts of Madhya Pradesh.

The increasing number of school children mobilized to join this festivity of handwashing reveals a different kind of obsession with numbers. The emphasis here lies in producing a large aggregated number rather than deploying sophisticated statistical analysis to project or predict future. Neither the political scientific investigation of a regime of numbers (Anderson 1983; Scott 1991),[144] nor the concerns of philosophers and historians with the pervasiveness of probability (Hacking 1975, 1990, 2006; Porter 1986, 1995),[145] adequately addresses this

[143] WaterAID global reported, "After a rigorous verification process – including visiting a certain number of schools in each district and meeting students, teachers and witnesses – the auditors finally concluded that a total of 1,276,425 children had simultaneously washed their hands in Madhya Pradesh. This number easily broke record from the previous year. On 1 July 2015, Guinness World Records officially declared that Madhya Pradesh had set a new world record for the most number of people washing hands in multiple locations." See, Cherukupulli, A. (2015, July 16). World Record Washing: Spreading Hygiene Awareness on a Massive Scale. WaterAID blogpost. Retrieved from http://www.wateraid.org/news/news/world-record-washing-spreading-hygiene-awareness-on-a-massive-scale

[144] Benedict Anderson (1983) and James Scott (1991), in their respective studies of state formation and nationalism, emphasized the mutual relationship between the rise of statistics and state's mode of social control. See Anderson, B. R. (2006). *Imagined communities : reflections on the origin and spread of nationalism*(Rev. ed.). Verso; and Scott, J. C. (1998). *Seeing like a state : how certain schemes to improve the human condition have failed*. Conn.: Yale University Press.

[145] Ian Hacking, in his work *The Emergence of Probability* (2006 [1975]) examines the historical and philosophical root of modern concept of probability and concepts associated with it including expectation, statistical stability, and induction. His philosophical inquiry into the topic provides an explanation of the origins of our present day concept of probability characterized by a dual epistemic and aleatory categories. A duality that was absent in Medieval concept of probability. In his work *The Rise of Statistical Thinking* (1986), science historian Theodore Porter takes up a similar project. However, the production of number in the context of the GHWD is concerned with producing probability affect. See Hacking, I. (2006). *The emergence of probability : a philosophical study of early ideas about probability, induction and statistical inference* (2nd ed.). Cambridge ; New York: Cambridge University Press; and, Porter, T. M. (1986). *The rise of statistical thinking, 1820-1900*. Princeton, N.J.: Princeton University Press.

escalated production of number aiming at breaking a world record, or, as an Indian aid worker has put it, "record washing numbers" (Cherukupulli 2015).

It is a new, inventive frontier of "number as materialized relations" (Verran 2010, p. 172).[146] The labor behind the production of this extravagant number of the "most people washing hands at the same time" materially expresses the anomalous and absurd moments in the celebration of the claimed magical goodness of soap and handwashing. In the following section, I will look into the asymmetrical investment of expert and bureaucratic labor in the celebration of the day (Elychar 2005; Mathur 2015).

Articulating Difference

In 2014, the organizers' attention moved away from the "record washing" to national events in Bangladesh. The celebration was relocated from the school premises to the National Press Club. Local left political parties and NGOs organized their protest/public events at this site to ensure media visibility. Walking to the site, I realized that the momentum of the day had shifted. The celebration of the GHWD would also mark the commencement of National Sanitation Month. The schoolteachers attending the event with their students were desperately trying to keep their eyes on the participating children. At the corner between the National Press Club and the Secretariat, students were mobbing a booth to collect baseball caps, t-shirts, and Lifebuoy GHWD memorabilia soap. As I made my way to the booth, I saw a WaterAid staffer I recalled

[146] Helen Verran (2010), in her proposition of a new inventive frontier of number refuses to construe it as cognitive apparatus or semiotic device alone. She sees them as materialized in place and time and realized in specific practical ways. From an anthropological point of view this way of rendering numbers as embodied in space, time and relations make them accessible to ethnography and "eschews the more extravagant claims about what numbers are instrumentalist accounts of numbers. See, Verran, H. (2010). Number as an inventive frontier in knowing and working Australia's water resources. *Anthropological Theory*, *10* (1-2), 171-178.

from the previous year. He looked at me and laughed, "*baltiwallah* (bucketwalla) apa, kemon achen (Bucketwallah sister, how are you)?" We both burst out laughing.

My interest in the history and practice of the ICDDRB often associated me with the Center. Among the organizers, the role of the Center as the provider of the red bucket is referred to as *baltiwallah. "*They sent the *baltis* with their logos and come in their white-clean shirts, Nike-Keds, and sit on the stage to give motivational speeches. And you follow them around," the WaterAid staff mockingly remarked. Undoubtedly, the role of the Center moves beyond the title of *baltiwallah;* what this nickname precisely encapsulates is the threshold of inequality and unequal distribution of labor within a global collaborative effort like handwashing day (Redfield 2012). The providers of the bucket do not supervise the schoolchildren or control traffic while the rally is proceeding. Neither do they wait outside with the common participants of the event. Sweating under the scorching October sun, we all were waiting for the Health Minister to arrive to inaugurate the event. Two schoolboys had already fainted and been taken to a nearby medical center. I saw the expert members of UNICEF and ICDDRB walking inside the Press Club. The Minister would join them at the VIP lounge there. No one considered anything in this scene unexpected.

Figure 16 Unilever supplied Lifebuoy soaps and ICDDRB supported the GHWD event by supplying Red buckets. All buckets have ICDDRB logo pasted on it. Rajdhani High School Premise, October 15, 2012.

I was looking for an opportunity to talk to an officer of the DPHE. Coventionally, the National Sanitation Month is organized in September. It coincides with the subsiding flood water in Bangladesh. I was curious to know why it had been pushed back a month from its regular observance. As we were waiting to reach the limit of the expected delay, Azhar Hussain of DPHE took a minute to drink tea at the roadside tea-stall. I approached him to ask about this shift in the calendar. His response reinforces my point about the periodizing practices of the global governing institutes. It also articulates differences in access, mobility and comfort between experts, field level staff and all other hierarchically situated actors and actants (Star 1995; Latour 1999).

> "You know the hassle and expense of organizing a national event of this magnitude and scale. We wanted to have the sanitation month sandwiched between the global handwashing and world toilet day. We are always short-staffed. No one wants to take field-level responsibilities. Everyone wants to be a *babu* in the office. We are no INGOs, we have no money to buy fancy toilet paper. So this is a *porikkhamulok uddyog* (experimental initiative) to minimize cost and labor."

He poignantly elaborates on the messiness in local management of global traffic of numbers and norms (Cohen 1994; Anderson 2002) to establish a day to "recognize hygiene as a pillar of international development and health." Mapping the many lacks and inadequacies that differentiate a government office from a transnational research center or an international NGO office, he gave an account of the situated observance of the global handwashing day (Anderson 2002). In the following section, I further elaborate on this uneven distribution of labor in the process of authorizing the hygiene model of cleanliness in Bangladesh.

Authorizing the Hygiene Model of Cleanliness

Our leisurely but sweaty period of waiting abruptly came to an end with the sight of a brand new Pajero, which carried the event's chief guest. Bored school children cheered at the sight of flying national flags on the rear. It was followed by three security cars, all announcing his entrance with deafening police sirens. Students started to form line, holding the banner of the GHWD tightly. NGO staff made sure the banner was not crinkled. With a brief announcement, the rally began; the main speeches would not happen until later.

Ten feet away from the starting line, the Health Minister is already soaked in sweat, gasping for breath, and trying to pose for the photojournalists gathered to cover the observance of GHWD. The other special guests, two foreigner representatives of ICDDRB and UNICEF try to slow down to accommodate the pace of the Health Minister. The handpicked "good students" are allowed to stand in the front row and hold the banner with the distinguished guests. Every

time they look at the potbelly of the Minister, they pretended that they are adjusting their oversized GHWD basketball caps in a desperate measure to hide their laughter. The field-level NGO staffs are trying to manage traffic in the business district of Dhaka. Some young men in Lifebouy-color t-shirts (a shade of dark pink) are distributing leaflets promoting soap and hand hygiene. Once the photojournalists stopped clicking, the Health Minister left the rally, while other expats and expert participants walked among the children from the National Press Club to the Osmani Auditorium. At the auditorium, a half-day symposium on water, sanitation, and personal hygiene, the National Sanitation Month is declared open.

On stage, on a medium-height table covered with a pristine white tablecloth, were a red bucket, a bar of Lifebuoy soap, and an empty plastic bowl. Once all the invited speakers and the Health Minister had taken the stage, a student was invited to join the speakers to demonstrate the five steps of handwashing. As she washed her hands, another student from the backstage described the five steps of handwashing with particular emphasis on these two steps:

> Lather your hands by rubbing them together with the soap. Be sure to lather the backs of your hands, between your fingers, and under your nails.
> Scrub your hands for at least 20 seconds. If you need to count, sing *hattima tim tim*

After the demonstration, everyone present in the auditorium clapped and the program coordinator urged children to follow these five steps when they wash their hands at home. The audience welcomed his call for the everyday practice of hygienic handwashing.

The speeches at the event were long. All the speakers followed the same routine. They began with a detailed account of their own organizational achievements in the water and sanitation sector. To conclude, they reiterated the importance of handwashing with soap. Tired and exhausted, the students were restless; they did not want to wait for their lunchboxes. I too was exhausted and nodded when an organizer said, "*stage e uthlei bhute dhore* (as soon as you

are on stage with a mic, as if you are possessed, as if they are preaching for prevention)." Drawing from Jean and John Comaroffs' (1993) expansive view of ritual, I could isolate ritual elements in this moment of the GHWD: the oracle (health minister, water and sanitation experts, epidemiologist, public health bureaucrat, and sports figure) and its sacred object (soap and clean water). I rest on their revised Durkheimian definition of ritual that argues it as "persuasive practices enjoining reality and an authority stretching far beyond the immediacies of the present" (Comaroff and Comaroff 1993, p.xvii). The temporary disconnect between the preacher and the audience in the auditorium does not affect the continuity of the hygiene programs. The power of this ritual handwashing lies in its ability to bureaucratize the model that ensures a routine engagement with it. The elaborate and arduous ritual naturalizes various forms of indifference of the organizers and participants without disrupting actual celebration of the GHWD (Herzfeld 1993; Gupta 2012).

In this dry moment of the event, schoolchildren, NGO staff, government bureaucrats, the sanitation experts from ICDDRB, and Lifebuoy Brand Director all enter their respective ritual roles to officially pursue and endorse the hygiene model of cleanliness outlined in the mission statement of the PPPHW: washing your hands with soap is "an easy, effective, and affordable do-it-yourself vaccine that prevents infections and saves lives." I include "endorse" along with "pursue" in Comaroff and Comaroffs' (ibid) definition to underline the scale of approval of and indifference towards the message of global handwashing day. The complete endorsement of the hygiene model of cleanliness becomes evident in the words of the first Bangladeshi woman on Mount Everest, Nishat Majumdar. While addressing the GHWD schoolchildren's assembly, she says, "*chele-meyera* (children), in order to be successful, you should be in good health. *Ar shusathyar odhikari hote hole ki hoy* (and what should you be doing to be in good health)? You

need to internalize the rules of cleanliness. It is easy and it is simple. Now repeat after me," and the school assembly repeats, "personal hygiene and cleanliness means washing your hands with Lifebuoy soap before eating and after you use the bathroom."

Although all who participated may have authorized and endorsed the hygiene model, not all of them pursue or enroll into it with absolute ideological support for the model. This half-hearted, often sly pursuit of hygienic culture in Bangladesh is analytically perplexing. The apparent paradox lies in the ways that pervasive indifference and ambivalence persist without locally delegitimizing the GHWD. From the perspective of public health, bureaucratic ambivalence is read as "inefficient" and public indifference as "ignorance or lack of awareness." In the following section, I argue, ascribing inefficiency and ignorance to public and bureaucratic indifference is "a technique of distracting attention" from vital material inequalities that influence everyday practices of hygiene (Moore 2006).[147]

Normalizing Inequality

In 2012, all guests and schoolchildren had left the Rajdhani High School premises after the celebration of GHWD. It was already too late in the afternoon. Two staff members were arguing with vendors, negotiating bills with hired laborers. In a carton, there were still a few bars of Lifebuoy soap left. The mic man approached the WaterAid staff: "Can I take these soaps for my children?"

Until the mic man asked, the soap was not a commodity. It was a "magic stone" to be freely distributed on this occasion to preach prevention from diarrhea/cholera, to fight

[147] In the introduction of his work entitled, *New Imperialisms* (2006) Colin Moore describe the language of United National as new modernist tropes that manages to ideologically cloth the neoliberal order of things. The language of human rights, gender equity, good governance is in other words "spectacular deployment of up-to-the-minute technologies of mass deception and distraction (p.6)." See Mooers, C. P. (2006). *The new imperialists : ideologies of empire*. Oxford: Oneworld.

"unhygienic behavior" of the people in poverty. Unmasking the masked reality, his question demands attention to the structural concerns otherwise pursued as a behavioral problem with a simple solution. In the mission statement of the PPPHW, the labeling of handwashing with soap as a "do-it-yourself-vaccine" is an abbreviated version of this definition. In his GHWD address, an expert member of the WASH project, ICDDRB also reifies this behavioral definition,

> It's scientifically proven fact. You use soap to kill bacteria, fight germs, prevent infectious diseases and be healthy. It is as simple as that.

Here, the public indifference and bureaucratic ambivalence is not directed at the facticity of the sanitation and hygiene science. Considering historic public health investment in this sector, it is not realistically possible to remain unaware of the importance of hygiene. When a woman in Shatnal interrupts the community health workers, she does not question the fact that "bad hygiene" is one of the main contributing factors in the transmission of infectious disease, particularly choelra/diarrhea. Among other reasons, she does so because either she is fatigued from being a "target" of this aggressive campaign or she does not have the means to include these healthy practices in her everyday life.

In an earlier chapter, while discussing the different ways people talk about risk/*jhunki,* I have cited the bewilderment of a health worker at the installation of latrine inside a kitchen in Shatnal:

> Hay! Allah! You have installed the latrine in your kitchen. Hay! Allah! *Korsen ki eta apne* (What have you done)*?* It's too risky. In fact, it's beyond risk. *Rog-jibanu* (germ) could spread and contract so easily.

Unswayed and nonchalant at her dramatic pursuit, the woman of the household replied, "That's all the land we have. Do you want me to share it with the Aslam's [neighbor]?" This land question in public hygiene and sanitation was evident when a sanitation worker of Local Government Engineering Development (LGED) described her job as "carrying garbage from one

place to another. There is no landfill allocated for garbage disposal, it is either the river or the Bazaar."

During monsoon, the majority of the tube-wells are flooded in Shatnal. A handful of tube wells are marked red for arsenic contamination. The scarcity of safe water is one of the many common concerns of villagers. However, unequal distribution of land and access to safe water is not part of the conversation on the GHWD. In Dhaka city, where the main celebration of GHWD takes place, low-income or "slum-dwelling" children are taught how to wash their hands hygienically without any acknowledgment that the price of Lifebuoy soap is more than that of an egg in Bangladesh. For a red bucket of water, these children would have to stand in line for hours. There are days when they may have to pay for the bucket of water. Vital material inequalities stand in the way of their translating knowledge into action. These are familiar realities, but they must not be articulated in the arrangement of sanitation and hygiene campaigns (Geissler 2013). The public and bureaucratic ambivalence towards the GHWD is embedded in this known but unacknowledged reality. It is not an irrational refusal of scientific facts; this abjection refers to the model that is publicly known to be ineffective by design.

In the following three sections, I will address this management of knowing and unknowing in the organization of the global message of the GHWD. I have already written about social inequality in two different sections of this chapter while addressing the inherent problem in this behavioral definition of hygiene and sanitation. At the risk of being repetitive, I will return to the question of inequality to talk about the organized silencing of class as a category of social analysis in development discourses. In doing so, I will look at the ways in which a neoliberal development initiative like the GHWD makes class vanish through the classic sleight of hand of commodity fetishism. As an example, I explore how Meena, an animated cartoon character,

celebrated the GHWD. Meena is a "culturally appropriate" animated cartoon character created by Meena Communication Initiative (MCI), UNICEF to advocate for the child rights in South Asia.[148]

Ordering Dissent and Fetishizing Soap

In 2010, after attending the festivities of the GHWD, Meena writes in her blog about how they have celebrated the GHWD at school.[149] This blog was posted in *Kidsspace,* an online space to secure children's voices in the UNICEF's child rights programs. Mostly, the space is dedicated to "underprivileged children," except for Meena's blog, which is managed by children from a few private English medium schools (private schools where language of instruction is English).[150] The Meena character itself emerged from similar participatory, culturally inclusive efforts. Broadly, UNICEF initiated these spaces and processes to demonstrate its commitment to inclusive and participatory approaches in their program implementation. However, in practice, it proved to be an "inclusionary control" (Wood 1999 cited Kothari 2005). Neither Meena, nor the blogger of Kidsspace offered any voice to critically engage with the discourses of hygiene. The

[148] In their website, UNICEF described the Meena Communication Initiative (MCI) and creation of Meena as a mass communication project "aimed at changing perceptions and behavior that hamper the survival, protection and development of girls in South Asia. Following eight years of extensive research in the region since the initial conceptualization, UNICEF launched the Meena Communication Initiative in September 1998. The name Meena is one that spans the different cultures in the region, and a cast of carefully researched characters has been created for Meena's family and community. The Meena stories are entertaining and fun, but also reflect the realities of girls' lives in South Asia. The stories cover issues such as education, health, gender equity, freedom from exploitation and abuse." For the history of the cartoon character Meena, see, McKee, N., Aghi, M., Carnegie, R., & Shahzadi, N. (2004). Cartoons and comic books for changing social norms: Meena, the South Asian girl. *Entertainment-education and social change: History, research, and practice*, 331-349.

[149] See, Kidspace. UNICEF Blog. Retrieved from http://www.unicef.org/bangladesh/kidsspace_5107.htm

[150] The education system in Bangladesh is deeply stratified. An increasing number of rural children are opting for Madrasha education, in which the language of instruction is Bangla and the teaching philosophy is strictly influenced by "Islamic" curriculum. The medium of instruction of state sponsored public schools is Bangla. Small-town middle-class families still send their children to public schools. A significant part of the elite prefers to send their children to English medium schools. They choose UK based curriculum and assessment. English medium private education carries the highest prestige. The child advocates of UNICEF programs belong to this privileged class. See, Imam, S. R. (2005). English as a Global Language and the Question of Nation-Building Education in Bangladesh. *Comparative Education*, *41*(4), 471–486.

blogger did not mention the price of soap, for example, or ask why this campaign equates commodified life with hygienic life? Ultimately, UNICEF-appointed child advocates serve as mere ventriloquists.

On closer inspection the post proves a dutifully dull first person re-narration of the mission statement of PPPHW. The child blogger is from an educated upper middle-class family.[151] As part of her extracurricular activities, an elite child from urban Dhaka who never had participated in a GHWD celebration submits this blogpost emulating the voice of an imaginary character, Meena, to educate the slum-dwelling/rural children in Bangladesh (who are largely absent from cyperspace). As she writes:

> On Global Handwashing Day, girls and boys all over the world learn about how important it is to wash their hands with soap. Teacher said that Global Handwashing Day is about more than just one day - it reminds us that we need to practice good hygiene every day of the year! Teacher told us that many diseases could be avoided if only everyone would remember to wash their hands before they eat and after they visit the toilet. At the end of the day, teacher took us outside to the tube-well and we all practiced washing our hands with soap. It was a hot day, so it was fun to splash about in the water with my friends!

I found this meticulous simulation of reality and representation deeply unsettling (Baudrillard 1994). The writers and readers of this blog do not belong to the "real" target group of the GHWD or the sanitation and hygiene program. It is very unlikely that children in poverty would spend their prized digital time looking at blogs written in English on hygiene education. Absolving historically irreconcilable class differences, the narration produces a universal category of child who could only benefit from the use of soap.[152]

---

[151] Email correspondence with staff members of Meena Communication Initiative, UNICEF.

[152] While my analysis here is deeply indebted to Jean Baudrillard's (1994) theorization of hyperreality, I would not argue it as another category without an origin. This universal category of the child is a blending of 'reality' and representation, where there is no clear indication of where the reality stops and the representation begins. See, Baudrillard, J. (1994). *Simulacra and simulation*. Ann Arbor: University of Michigan Press.

At first, I thought that class, race and gender had been taken out of this equation when creating this universal category of child. This socially disembodied portrayal of the universal child ensured the legitimacy and the hegemonic authority of this model.

Figure 17 Meena, a cartoon character from Meena Communication Initiative celebrating the Global Handwashing Day, October 15, 2010.

However, from the photograph that accompanied the post, it is evident that Meena goes to an NGO-managed, unpaid informal school. The bodily comportment and the dress code of the students and their teacher confirm this assumption. Therefore, it is not total dissolution of class difference. To read this subtle management of social relations, I draw from feminist cultural historian, Anne McClintock's (1995) work on the interwoven histories of soap and the ideological work of commodities in the British colonial conquest.[153] As soap grew into a burgeoning commodity in the early nineteenth century, McClintock asserts, "Victorian cleaning rituals were peddled globally as the God-given sign of Britain's evolutionary superiority, and soap was invested with magical, fetish powers" (McClintock 1995, p. 207).

[153] See, McClintock, A. (1995). *Imperial leather : race, gender, and sexuality in the colonial contest*. New York: Routledge.

Following her analytical trajectory, I argue that a postcolonial form of commodity fetishism is evident in the blogpost of Meena and in the GHWD activities in general. It does not directly preach for the supremacy of the West; rather, it speaks for the universal applicability of scientifically proven fact that soap saves life. In a strictly Marxist sense of the term, commodity fetishism is what creates ideological boundaries between what is seen and what obscured when goods travel through a market. Here, relations between producer, distributor and recipient/beneficiary of this knowledge/model becomes invisible and deemed irrelevant, including the fact that soap itself is ordinarily a commodity.

An important attribute of this new form of fetishization is that it dehistoricizes the model by delinking it from its colonial past. In order to gain moral authority in postcolonial context, a sharp departure from the colonial past is necessary on the part of the global actors like Unilever, UNICEF and ICDDRB. Locating the colonial ancestors of Meena, a contemporary champion of hygienic culture, the following section highlights the continuities and divergences in the transition from colonial rule to neoliberal development. I show how dehistoricization of the hygiene model of cleanliness become essential to mobilize support for a public health agenda like the GHWD.

Dehistoricizing the Model

In 2011, a few months before the GWHD Meena Communication Initiative, UNICEF released an episode of an animated cartoon titled "Magic Stone." It was sponsored by Unilever. The scripting of the episode involved many expert voices including members from the WASH project of ICDDRB, and also included representatives of the working class in the process. "This was a particularly critical episode as it needed to crack the code. Where are we making mistake? Why

is massive investment in the personal hygiene campaign not showing its result," said a staff member of the MCI. [154]

After much consultation, the episode was launched. There are four protagonists in this episode: Mina, the Village Doctor, the Alien-child, and the Soap.

> At the dead of the night, a spaceship arrived in Meena's village. An alien child walked out of the spaceship, tears trickling down its rosy cheeks. Their planet was plagued with unseen monsters. Monsters were taking life mercilessly. They are particularly unkind towards children. In this trying times, they heard that people in Earth has this magic stone that could destroy the monster. The alien sought help from Meena and her friends to find the magic stone. After a long search, the village doctor come to their rescue and helped Meena decode the magic stone as soap. Meena and her alien friend sing and dance in praise of soap. In the last scene, the alien-child hugs Meena, "Thank you for saving our lives." With its wobbly steps, it walked back to its spaceship, carrying a carton full of Lifebuoy color soaps. Meena and her friends waving at it.[155]

There is perplexing ambiguity in the characterization of the alien in this episode. Traveling time and space, it appeared in a remote village of Bangladesh. Does it embody the "unhygienic" face of our colonial past? The alien society depicted here demonstrates the scientific knowledge and expertise of aeronautics, yet lacks the most basic knowledge of bacteriology. It is a staunch reminder of our colonial past, but it is not traveling from the past. It dwells in an imaginary time between our colonial past and postcolonial present and occupies a place situated between the developed and underdeveloped world. In the language of international development, this time-space is conceived as "developing" nation states. Tentatively speaking, therefore, the alien is traveling from an imaginary place bearing resemblance to Bangladesh. This possibility restores the past in the present belonging to "the reluctant mass in Bangladesh" who does not comply with the sanitation and hygienic measures (Luby et al. 2009).

[154] Personal correspondence with a staff member of UNICEF, Bangladesh.

[155] The summary of the episode is mine.

Similarly, Meena is not Uncle Sam.[156] Is it possible that Uncle Sam is metamorphosed into an adolescent girl child, Meena? The ambiguous similarity and rupture between the figure of the savior is what postcolonial theorist Homi Bhaba (1984) has described as the ambivalence of mimicry (almost the same, but not quite) "transformed into an uncertainty which fixes the colonial subject as a partial presence (p. 128)." Meena is passionate, giving, and confident, but she is yet to be "enlightened about" the magic of soap. However, she can learn from her physician at the Shasthya Complex about soap. She is granted access to knowledge, yet she is not the prime bearer of it. The knowledge remains with the physician, the only modern biomedical authoritative figure. The hierarchical relationship between the sponsor, organizer, and participants of the GHWD that I mentioned earlier in this chapter can be recognized in this knowledge distribution cycle.

In the twenty-minute long episode, soap was shown even before Meena and her friend discovered it as a scientifically proven cleaning agent. Their mother was using soap; neighbors were using soap. However, they were not aware of the hygienic value embedded in it. Making yourself familiar with a commodity, becoming aware of a consumer product is not enough; Meena has to be ideological conscripted into the regime of hygiene (Scott 2004). In the last

---

[156] Cultural historians, postcolonial scholars and anthropologists have extensively documented that immediate after the industrial revolution, in a particular moment of capitalist expansion, the spread of hygienic culture and the mass production of soap become possible. At this historical juncture, Uncle Sam – a colonial male figure embodying the benevolent motif of colonial rule – emerged in a mass advertisement campaign of Ivory soap:

"Said Uncle Sam: "I will be wise,
And thus the Indian civilize:
Instead of guns, that kill a mile,
Tobacco, lead, and liquor vile,
I'll give, domestic arts to teach,
A cake of Ivory soap to each."

For an account of these interweaving histories, see McClintock, A. (1995). *Imperial leather: race, gender, and sexuality in the colonial contest*. New York: Routledge; and Burke, T. (1996). *Lifebuoy men, lux women: commodification, consumption, and cleanliness in modern Zimbabwe*. Durham: Duke University Press. For more details on this particular advertisement, see Saydia Gulrukh, *Hat Dhoar Rajniti. Pears Shaban theke Meenar Jadur Pathor (The Politics of Handwashing: From Pear Soap to Meena's Magic Stone),* Public Nribigyan 3, Feb 2016.

scene, we see Meena and her friends singing and dancing in praise of a Lifebuoy-colored soap in their hands.

Figure 18 Meena and her friends meet the alien-child (screen-shot)

The ambiguity in the representation of the alien and its return to an unknown place displaces the interwoven colonial history of soap and civilization. Not only does it vanish the immediate colonial history of soap, but also Europe's long histories of cleanliness that aesthetically diverge from this strict model of universal hygiene. This denial of history is essential to the claim of the PPPHW that their cultural association with the hygienic model of cleanliness is timeless (Hoy 1995; Wright 2000; Smith 2007).[157] The dehistoricization of the model is necessary precondition to constitute their identity as "the great champion of hygienic culture."[158] Since the meaning

[157] In her unsanitized history *The Dirt on Clean* (2007), Katherine Ashenburg argued that the Western obsession with a germ-oriented personal hygiene is a new phenomenon in history. Among other examples, she discussed the Black Death in the fourteenth century, when the medical faculty at the Sorbonne in Paris thought that "the people who were at risk for getting the plague had opened their pores in warm or hot water, in the baths, and they were much more susceptible." See, Ashenburg, K. (2007). *The dirt on clean : an unsanitized history* (1st American ed.). New York: North Point Press.

[158] In colonial India, the British rulers did not think it is necessary for the working-class native laborers to bathe. In

attached to soap purportedly belongs to the realm of science. Soap is figured as beyond history and beyond politics proper. It has no history and no equivalent. Even though, experimental trials conducted by the Center showed that use of soap, ash, *chun* and *ritha* gave similar results when women washed their hand under the same conditions, it is only soap that is approved as cleaning agent by the Center when writing the script for Meena cartoon series. Knowledge about other cleaning agents are available, but they belong to the realms of known-unknown (Geissler 2013). Knowledge about the efficacy of indigenous cleaning agents falls out of public discourse. To begin an analysis of this postcolonial moment in soap's history is to refuse in part to accept this erasure and dehistoricization and ask why commodification of everyday life is so fundamental in the personal hygiene and sanitation campaigns (Street 2014).

Saving Lives with Soap

The erasure of colonial history of soap and its civilizing mission is not an all-encompassing reality. In reports and pamphlets of the Lifebuoy Social Mission, I have often seen advertising images from the colonial time displayed in a collage form. The presence of these racially prejudiced images is not prominent, but they are visible in the GBHD documents. The implicit attempt to commodify everyday live through handwashing campaign is also not an unspoken phenomenon. During the GBHD celebration (2014) at the National Press Club, Quazi Motakabbir, a schoolteacher spoke bluntly about the profit-seeking behavior of Lifebuoy/Unilever. He looked annoyed the entire time we were there.

> *Ki sundar tamasha* (What a perfect spectacle)? It's a perfect opportunity for Lifebuoy. Sponsoring the event, a corporation defines our health problem, then decides a solution that serves their business interest. Teach children to wash hand with soap, expand the market, make them consumer. Meena promotes soap, even

1788, the Baron Montyon suggested the "common laborer should not wash when working" since "the movement of his sweat was enough to clear his pores." See, Prashad, V. (1994). Native Dirt/Imperial ordure: The cholera of 1832 and the morbid resolutions of modernity. *Journal of Historical Sociology, 7*(3), 243-260.

> a school teacher has to promote a commodity. Can I teach my student about the *profit seeking behavior of corporation* in addition to health seeking behavior? No.

Motakabbir's binary opposition between profit seeking behavior of the corporation and health seeking behavior of the individual is an intriguing intervention, although his analysis undermines the moral logic behind Lifebuoy/Unilever's participation in this Public Private Partnership for Handwashing (PPPHW). My conversation with him prompted me to see the role of the GHWD beyond its ideological mission to define the problem of sanitation and hygiene into an individual behavioral problem; to delink the global project of handwashing with soap from its colonial past; and to normalize pervasive unequal material condition of reality that results in to an unsanitary condition of living. There is an economic rationality behind the participation of Lifebuoy in this collaboration and it is not restricted to the promotion of soap as commodity in everyday life.

Motakabbir's binary opposites, a junior NGO staff's comparison between the price of soap and egg as a source of nutrition – these discussions at the margin of the GHWD celebration kept the story of soap as commodity alive. However, their analysis simplified a complex process of mobilization of capital into a question of promoting consumerism. The collaboration between the government of Bangladesh, UNICEF, ICDDRB and Lifebuoy/Unilever as a platform to observe the GHWD creates an opportunity for Lifebuoy to mobilize different forms of capital. I read in Motakabbir's analysis an echo of Talha Hossain's discussion of infrastructure of decision making/definition of public health (Figure 12, Chapter V Making Expert). More importantly, I see a similar hierarchical network taking shape within the PPPHW. Lifebuoy liquidates its economic capital to gain access to the means of defining problem of public health and designing the solution for it in Bangladesh. More importantly, naming the solution for the problem there remains an opportunity to turn symbolic capital back to economic capital. Therefore, stories of

saving lives with soaps, decreasing child mortality rate from cholera/diarrhea are also about stories of liquidating capital from one form to another.

Interjection: Rumor of Scientific Misconduct, July, 2009

The dust of "native" suspicion towards the colonizers/foreigners has settled.

Scientists from the Center in Matlab are no longer carrying gun-like injection devices for anti-cholera vaccine trials. The prison boat that the first generation of scientists and doctors used to treat patients peeks through the young coconut tree; it is now memorialized, carefully placed on a concrete pedestal to commemorate the victorious scientific war against cholera in Bangladesh.

Speed boats and local rowing boats are docked together near the main entrance. The only anomaly in this everyday landscape is the closed cast iron gate and a private security guard in a clean uniform guarding the entrance.

The dust of "native" suspicion towards the colonizers/foreigners has settled. Yet, I was still absorbed in stories of suspicion as I approached the entrance.

A Bangladeshi anthropologist who had been a staff member of the Center once told me how during her days in Matlab, she saw, "a group of men locked in a room inside the Center for some scientific studies."

Her vivid description of a dark corner of the Center left a lasting impression in me. I carried that darkness with me.

A renowned senior journalist also narrated similar stories to me. "You don't want CIA (Central Intelligence Agency) coming after you, do you?"

I carried a gory image of the Center in Matlab.

The security stopped me. His eyes scanned me quickly. "Are you pregnant, do you need pregnancy related support? You have to come back earlier in the morning. It's too late!"

"Your child has diarrhea? For how many days? But you have to bring her along."

I continued to deflect his gendered attention through silence.

He carefully looked at my shoulder bag again, and cautiously asked, "Are you from head office [the Center in Dhaka]?"

"Will you show me around? I have an appointment with one of the medical officers. I am a little early," I asked.

"I am sorry Apa (sister), you have to wait here. That is the order."

He gave me his stool and offered me tea.

"I am a research student from United States. I am studying the history of cholera research in Matlab."

He breathed a sigh of relief. Finally, he figured me out, "Oh! I see! You are like other researchers, only you are not a foreigner, you are Bangladeshi."

In Bengali culture, the effect of a chit-chat over a cup of tea is more than what one would imagine in the West. Dipesh Chakrabarty wrote at great length about it. In this particular occasion, the gender and class dynamics were navigated and negotiated.

"After you finish writing the history of the hospital, you should work for this laboratory as a researcher. They respect women more. There is no risk of losing job for women, and they do good science. It's a stable organization. See, there is a state of emergency in Bangladesh now (2008-9), but this hospital is not affected. We work by the word and order of US."

He stopped to take a break and sip his tea.[159]

[159] When he paused to sip his tea, I asked him whether he would agree for me to take notes as he talked. He nodded. This passage is reconstructed verbatim from the notes I took during our informal conversation.

"I used to be a Bangladesh border security guard. In many ways, this job gives me more satisfaction than the earlier one, not just because of higher salary. So many children are born free of cost at this Center, so many are saved. But, science here is not all made of goodness. Like last year, there was this girl who died of a drug overdose, nobody knew, but I did. The mother of the deceased child cried, rolling on the floor. Her grief still resonates in my heart. I am still anguished."

"What happened to the girl?

"They paid the family Tk. 12,000. You know, how in medicine it is written Flazil 400mg or Napa 20 mg. How do they decide on that?"

"Medicine dosage, you mean?"

"Yes, we do that research here in this Center," he declares proudly.

As I continue to listen to him, the history of the Center and its scientific practices appeared caught between stories of saving and risking life.

EPILOGUE: IN SEARCH OF A GOOD DEATH

I

Figure 19 Months after the collapse of the Royal Bengal Tiger statue, I noticed that the statue was sponsored by Unilever. The empty pedestal at the Sonargaon intersection remained as a constant reminder of an epidemic of gross governmental indifference towards the life of the everyday people in Dhaka.

Eventually, the municipal authority decided to remove the Royal Bengal Tiger statues. The phallic shaped empty pedestal stood alone. Its prevailing emptiness failed to subdue the glamour of the soap, however, in the form of a bright neon Unilever sign. One corner of the triangular pole that held it points towards the Pan Pacific Sonargaon Hotel. A second corner looks at a five storied leaning building of a local rundown hotel – the Hotel Sundarban. Ironically, it is named

after the Sundarban mangrove forest, the natural habitat of the Bengal Tiger. The government has closed down the establishment fearing the risk of collapse. And, the third corner of the triangular pole is hesitant to pick a direction. It could either guide pedestrian's gaze towards the SAARC fountain[160] symbolizing the diplomatic solidarity between nation states in South Asia. At a relative distance from this corner, there is also the broadcasting office of a private terrestrial channel, Ekushey Television.[161] Just as pedestrians crossing this intersection memorized the directions of the triangular pole, alongside we unintentionally memorize the political grammar of contemporary neoliberal order in Bangladesh.

The countless number of times I have stopped at red traffic signal by the statue, the momentary stillness in commotion rendered visible the ways (trans)national market forces interacting with the national government. The digital banner with the promise of world class hospitality for the travelling expats or conference participants from the wealthy nation states coexisted with the black and white handwritten rusty tin notice board declaring the local hotel unsafe. The corporate media from an objective distance reported on the collapse of tiger statue or the cracked wall of Hotel Sundarban. The military vehicles piercing through the stillness of a

[160] After the invasion of Afghanistan by the former USSR, the regional security became a pressing concern for the nation states in South Asia. Bangladesh was under the military dictatorship of Major General Ershad. In a letter to the head of states in the region, he raised his concerns and described his vision for the future of the region. The objective of this regional cooperation was two-folded. The signatory countries would provide trade benefit and lend diplomatic and military support in times of security crisis. Nepal, Sri Lanka, Bhutan and Maldives promptly accepted the Bangladeshi proposal. However, the process of was stalled and resulted into protracted diplomatic negotiation because of India and Pakistan's historic border and other disputes. In 1983, the seven countries of the region were able to come to a consensus and adopted the Declaration on South Asian Association Regional Cooperation (SAARC) and agreed to cooperate in the areas of agriculture, rural development, telecommunications, meteorology and public health activities. On December 1985, the first ever SAARC meeting was held in Dhaka, Bangladesh. The SAARC fountain, a public art to commemorate this occasion was installed at the Pan Pacific Sonargaon Hotel intersection. See, Iqbal, M. J. (2006). SAARC: origin, growth, potential and achievements. *Pakistan Journal of History and Culture*, *27*(2), 127-140.

[161] The Ekushey TV is the first private corporate television channel in Bangladesh. In the new millennium, it paved the way for the rise of corporate media and influenced the deregulation of the communication market.

traffic signal, breaking the everyday law prompted me to think about the emerging role of military forces in the post 9/11 Bangladesh.

I become distinctly aware of this everyday manifestation of neoliberal order when I attended the ASCON XIII (2011) at the Pan Pacific Sonargaon Hotel. In the aftermath of the collapse, this intersection also became a silent tribute to Ali Ahmed's death. In the age of anti-spectacle (Mirzoeff 2005), the loss of attention does not mean absolute oblivion. The slow decay of the Hotel Sundarban prevented me from forgetting his brutal death. The leaning structure of the hotel remained there as a reminder of the possibility of collapse in future. It slowed down the collective process of forgetting, and resisted the political anesthesia (Fassin 2007). The ruins of a public art and the cracked wall of a local hotel told the story of an epidemic of systematic indifference towards the life in poverty, communicated stories that modern managers of life do not feel that they need to know. In this dissertation, I have written about the danger and violence of a singular, insulated public health attention on cholera epidemic in Bangladesh (Adichie 2012).

II

In search of a good life Ali Ahmed came to the capital city of Dhaka, where he died a *porar moron* (unfortunate death). Sohrab Hossain, a soldier from the Border Guard Bangladesh (BGB) returned to Shatnal to die. Two weeks after his return, he committed suicide (June 7, 2012). His dead body was found in a pond near his house. He was among the suspects in the case of the BDR (Bangladesh Rifles) Mutiny 2009.[162] His wife said, he could not bear the horror of torture

[162] The BDR (Bangladesh Rifles) is a para military primarily responsible for the border security of the nation state. On February 2009, the non-commissioned officers rebelled against their commanding officers seconded from Bangladesh army. Fifty-seven army soldiers, including a number of top army officers, and more than 74 people in total were killed when BDR mutineers opened fire in a crowded hall. Discontentment over food rations (three months, as compared with twelve months for army), denial of UN peacekeeping mission services, low pay (the average BDR guard earns about $70 a month). After 30 hours of hostage negotiation, the mutineers surrendered.

he endured in police custody. At his funeral, villagers mostly talked about his death by drowning in a shallow ditch. He was a remarkable swimmer. In 2009, he even volunteered as a swimmer during the rescues operation of the capsized MV Malek. How could he die by drowning! While the public conversation was inconclusive in determining the cause of his death, Sohrab's mother told, "My son was almost killed in prison. He returned barely alive. He fought those *shoytans* (satans) in prison, stalled *azrail* from taking his life so he could die in his village." In the words of his mother, he died a good death.[163]

Mourners responses to Ali Ahmed and Sohrab Hossains' death outlines some conditions of good death in which the dying should be at ease, surrounded by her family members, relatives and friend, without fear or longing, prepared to die. However, dying at home alone cannot ensure a peaceful death. Some say, Sohrab's *atma* (atma) sneaked out of his body during postmortem. He is stuck in a zone between *moron* (death) and *porokal* (after life).

Kushum too had died at home, in her own bed (Chapter IV Calculating Risk). Her three months old daughter was in her arms when she breathed her last. Her mother was reciting from the Qur'an. In the absence of an affordable palliative care, she lived her last days in insufferable pain from metastatic breast cancer. The primary care giving activity for her involved navigating black market of morphine. Rahmat Ullah, her husband made an under-the-table arrangement with the government hospital in Narayanganj to maintain a steady supply of morphine. Still, the

---

Approximately 6000 BDR soldiers were arrested and Sohrab Hossain was among the arrestees. See, Ahmed, R. (2013). Horror and Grief. A nation besieged. *Tortured Truths* (146-150). Dhaka: Drik Books.

[163] Among the Yolmo people of Tibetan Nepal, Robert Desjarlis (2016) recorded good death as an "unexceptional death" in which people die in familiar circumstances where normal modalities of cessation, ritual, and mourning are available. Yolmo Buddhist are often concerned with a good death to achieve liberation or a good rebirth. They desire to die in their homes, among loved ones. Their vision of good death is similar to Sohrab's mother. See, Desjarlis, R. (2016). A good death recorded. In Das, V. (2016). *Living and dying in the contemporary world : a compendium* (648-661). Oakland, California: University of California Press.

dealer would make up stories of inadequate stock to sell the pain medication at absurdly high price. Dijen Sen often used his contacts with the pharmaceutical representatives to collect medicine for her. Writhing in pain, she faded away. Her mourning husband does not regret her death. He accepts it as Allah's verdict. However, he is full of remorse when thinking of the pain she endured during her last days, "She could have lived a little longer, if there were appropriate care. She could have died in comfort." Accepting death as imminent, and expressing deep regret in his inability to provide comfort and care for her dying wife, Rahmat Ullah in a way unsettles the hierarchal distribution of value between biological and other forms of life and death (Fassin 2009). Making the conditions of good life dependent upon the condition of good death creates sovereign space within/beyond the neoliberal design of public health. In this way a political desire for the right to *shavabik* (normal) death appears in historically recognizable form in Bangladesh.

III

Figure 20 "[We demand] a guarantee for normal death." - a political slogan on street-side wall of Chandpur College, Chandpur.

"[We demand] a guarantee of normal death" - this slogan derived from communist, Nirmal Sen's opinion piece for the daily *Dainik Bangla.* In 1973, when a newly established elite para-military force was ruthlessly committing extrajudicial killing, Sen wrote a column with this title. In the figure of paramilitary man or a skeletal body of victims of a fast approaching famine of 1974, death was haunting the streets of Dhaka. The everyday reality was quickly deviating from the promises of an independent Bangladesh. Frustrated and angry at the political order of things, he wrote, "In the independent Bangladesh, I want more. I want *shomata bhittik shomaj o jibon* (society and life based on equality), but also a guarantee for *normal death*."[164] In Sen's definition, a normal death is when a citizen lived a life to its fullest biological and social potential. In his view, the independent state is expected to ensure not just the right to be born, but also responsible for creating condition of a just life and normal death. In his formulation, a radical politics of life is possible when ethics of life is inseparable from the ethics of justice and social equality (Fassin 2009).

Three decades later, the title of his opinion piece began to appear in the banner of public protest, on the street-side walls (Figure 20). In 2004, a similar paramilitary force was re-created to ensure law and order situation in Bangladesh. Public life was interjected with a new fear of death from extrajudicial killing commonly known as cross fire (Interjection Crossfire March 2011). Along came the continuous nation-wide strike that made it difficult for everyday working class to make a living. Starvation and different forms of death from structural indifference is in plain sight. In response, protestors and political analysts began to talk about, "*nirapod jonmo jotheshto noy, shavabik mrittur guarantee chai* (safe and healthy birth is not enough, we demand

[164] See, Nirmal Sen, "*Shavabik mrittur guarantee chai* (We demand the guarantee of normal death)," *Dainik Bangla,* March 14, 1973, Dhaka.

the guarantee for normal death). While the political left in Dhaka rearticulated the historical demand and spoke in Sen's (1973) language of normal death, in Shatnal people have talked about a *bala moron* (good death).

Bearing witness to different forms of death and varied community responses to them, I have continually recorded a deeply rooted desire for good death, a yearning to secure comfort for the dying relatives. To acknowledge this yearning is to draw attention to the intimacy between good health and good death in practice. This intimate connection unsettles statist language and global public health metrics of fostering life and talking about cholera death in Bangladesh. I write these stories more to mark the relatively sovereign vision and cultivation of life than to describe the limits of the epidemiological category of mortality, life expectancy and preventable death. The limits of state practices of estimating death, designing notions of preventable death or conceptualization of health as standard monolith are carefully analyzed by eclectic ranges of scholars interested in critical studies of global public health (Biehl and Petryna 2013; Adams 2016; Singh 2016). I record stories of death and dying in Shatnal as an imaginative moment in which people in poverty defies the moral impulses of regimes of saving lives that privilege right to life over the right to burial or dying in comfort.

BIBLIOGRAPHY

ICDDRB Documents, Scientific Reports, Conference Proceedings Annual Reports

Pakistan SEATO Cholera Research Laboratory, The First Meeting of Directing Council Meeting Minutes, 1962, Dacca, East Pakistan.

Pakistan SEATO Cholera Research Laboratory, The Second Meeting of Directing Council Meeting Minutes, 1963, Dacca, East Pakistan.

Pakistan SEATO Cholera Research Laboratory, The Third Meeting of Directing Council Meeting Minutes, 1963, Dacca, East Pakistan.

Pakistan SEATO Cholera Research Laboratory, CRL Technical Committee Meeting, 1963, Dacca, East Pakistan.

Pakistan SEATO Cholera Research Laboratory, The Fourth Meeting of Directing Council Meeting Minutes, 1966, Dacca, East Pakistan.

Pakistan SEATO Cholera Research Laboratory, The Fifth Meeting of Directing Council Meeting Minutes, 1966, Dacca, East Pakistan.

Pakistan SEATO Cholera Research Laboratory, Annual Progress Report, 1965, Dacca, East Pakistan.

National Institute of Health, Meeting of NIH Cholera Advisor Committee, 1965, Bethesda, Maryland.

ICDDRB, Report of Trustee Meeting, 1985, Dhaka.

ICDDRB Strategic Plan to the Year 2010, 2000, Dhaka.

ICDDRB Strategic Plan to the Year 2015-18, Dhaka.

ICDDRB Employees' Code of Conduct Policy, 2015
http://www.icddrb.org/dmdocuments/Policy%20-Employees'%20Code%20of%20Conduct-V1-7%20oct%202015.pdf

ICDDRB Whistleblower Policy, 2014
http://www.icddrb.org/dmdocuments/Revised%20Whistleblower%20V2%207%20oct%202015.pdf

ICDDRB Conflict of Interest Policy, 2014
http://www.icddrb.org/dmdocuments/E&Y%20142%20Policy%20-%20Conflict%20of%20Interest%20Policy.pdf

Smritikotha, ICDDRB Silver Jubilee Publication, 2003, ICDDRB, Dhaka

Annual Report, Cholera Research Laboratory, 1976, Dacca.

Annual Report, Cholera Research Laboratory, 1977, Dacca.

Annual Report, Cholera Research Laboratory, 1978, Dacca.

Annual Report, Cholera Research Laboratory, 1979, Dacca.

ICDDRB Annual Report, 1979, Dacca.

ICDDRB Annual Report, 1980, Dacca.

ICDDRB Annual Report, 1982, Dacca.

ICDDRB Annual Report, 1983, Dacca.

ICDDRB Annual Report, 1984, Dhaka.

ICDDRB Annual Report, 1985, Dhaka.

ICDDRB Annual Report, 1987, Dhaka.

ICDDRB Annual Report, 1992, Dhaka.

ICDDRB Annual Report, 1993, Dhaka.

ICDDRB Annual Report,1994, Dhaka.

ICDDRB Annual Report, 1995, Dhaka.

ICDDRB Annual Report, 1997, Dhaka.

ICDDRB Annual Report, 1999, Dhaka.

ICDDRB Annual Report, 2000, Dhaka.

ICDDRB Annual Report, 2001, Dhaka.

ICDDRB Annual Report, 2002, Dhaka.

ICDDRB Annual Report, 2003, Dhaka.

ICDDRB Annual Report, 2004, Dhaka.

ICDDRB Annual Report, 2005, Dhaka.

ICDDRB Annual Report, 2006, Dhaka.

ICDDRB Annual Report, 2007, Dhaka.

ICDDRB Annual Report, 2008, Dhaka.

ICDDRB Annual Report, 2009, Dhaka.

ICDDRB Annual Report, 2010, Dhaka.

ICDDRB Annual Report, 2011, Dhaka.

ICDDRB Annual Report, 2012, Dhaka.

ICDDRB Annual Report, 2013, Dhaka.

ICDDRB Annual Report, 2014, Dhaka.

Scientific Reports

Khan et al. (1977). Household Distribution of Contraceptives in Bangladesh – The Rural Experience. Scientific Report No. 5. Dacca: Cholera Research Laboratory.

Briscoe, J. (1977). The Role of Water Supply in Improving Health in Poor Countries. Scientific Report No. 6. Dacca: Cholera Research Laboratory.

Khan, M and Curlin, G.T. (1977). Urban Cholera Study, 1974, Dacca. Scientific Report No. 7. Dacca: Cholera Research Laboratory.

Curlin et al. (1978). Immunological Aspects of a Cholera Toxoid Field Trial in Bangladesh. Scientific Report No. 8. Dacca: Cholera Research Laboratory.

Ruzicka. L. T and Chowdhury, A. (1978). Demographic Surveillance System- Matlab. Volume Two. Vital Events and Migration-1975. Scientific Report No. 10. Dacca: Cholera Research Laboratory.

Ruzicka. L. T and Chowdhury, A. (1978). Demographic Surveillance System- Matlab. Volume Three. Vital Events and Migration-1975. Scientific Report No. 11. Dacca: Cholera Research Laboratory.

Ruzicka. L. T and Chowdhury, A. (1978). Demographic Surveillance System- Matlab. Volume Four. Vital Events and Migration-1975. Scientific Report No. 12. Dacca: Cholera Research Laboratory.

Huq, M. I. (1979). Investigation of an Outbreak of Dysentery due to Shigella Sonnei in Small Community in Dacca. Scientific Report No. 25, Dacca: ICDDRB.

Black et al. (1979). Report on Rectigenicity and Immunogenicity of Welcome Cholera Toxoids in Bangladeshi Volunteers. Scientific Report No. 29. Dacca: ICDDRB.

Spira et al. (1980). Microbiological Surveilance of Intra-Neighbourghood EL Tor Cholera Transmission in Rural Bangladesh. Scientific Report No. 35. Dacca: ICDDRB.

Khan, M. (1980) Hours of Onset of Cholera Classical and El Tor and Diarrhoea. Scientific Report No. 39. Dacca: ICDDRB.

Chowdhury et al. (1981). Demographic Surveilance System Matlab. Volume Seven. Vital Events and Migration-1978. Scientific Report No. 47. Dacca: ICDDRB.

Khan et al. (1981). Intervention of Shigellosis by Hand washing. Scientific Report No. 54. Dacca: ICDDRB.

Alam, N et al. (1984). Demographic Surveillance System – Teknaf. Volume One. Census (1975), Vital Events and Migration, 1976- 1978. Scientific Report No. 60. Dhaka: ICDDRB.

Faruque et al. (1985). An Evaluation of the ICDDRB Training Programme: Diarrhoeal Disease Epidemic Control. Scientific Report No. 21. Dacca: ICDDRB.

Mahmud, S and Huda, S.(1998). Participation in BRAC's Rural Development Program and the Impact of Group Dynamic in Individual Outcome. Working Paper Number. 22. Dhaka: BRAC-ICDDRB Joint Research Project.

Ahmed, S. M., Chowdhury, M., Bhuiya, A. (1998). Two Studies on Health Care-seeking Behaviour and Household Practices of BRAC Member and Non-members Households in Matlab, Bangladesh. Working Paper Number. 24. Dhaka: BRAC- ICDDRB Joint Research Project.

Nahar, L., Sarder, A.M., Ginneken, J.K., Khan, M.K.A., (1996). Demographic Surveillance System – Matlab. Volume Twenty Six. 1993 Population Census. Scientific Report No. 78. Dhaka: ICDDRB.

Mostafa, G., Ahmed, K., Shaikh, M. A. K., Ginneken, J.K., Sarder, A.M. (1996). Demographic Surveillance System – Matlab. Volume Twenty Seven. Registration of Demographic Events. Scientific Report No. 79. Dhaka: ICDDRB.

Scientific Report. (2000). Health and Demographic Surveilance System- Matlab. Volume Thirty One. Registration of Demograohic Events and Contraceptive Use 1998. Scientific Report No. 87. Dhaka: ICDDRB.

Health and Science Bulletin. (2005) Multi Drug Resistant Specific *Vibro Cholera O1* Found. 3

(2) 1-3.

Rahman et al., (1978). The Matlab Contraceptive Distribution Project. Dhaka: ICDDRB. Retrieved from dspace.icddrb.org:8080/jspui/handle/123456789/4214

Conference Proceedings

Proceedings of the Cholera Research Symposium, January 24-29, 1965, Honolulu, Hawaii, Washington, US Government Printing Office.

Proceedings of the 11th Joint Conference, Cholera Panel, US Japan Cooperative Medical Science Program, 1975, Japan.

Proceedings of the 12th Joint Conference, Cholera Panel, US Japan Cooperative Medical Science Program, 1976, Japan.

Proceedings of the 12th Joint Conference, Cholera Panel, US Japan Cooperative Medical Science Program, 1978, Japan.

Proceedings of the 16th Joint Conference, Cholera Panel, US Japan Cooperative Medical Science Program, 1980, Japan.

Conference on Cholera. Paper Presented at the Inaugural Ceremony of Pakistan SEATO Cholera Research Laboratory, East Pakistan Assembly House, Dacca, East Pakistan, December, 5-8, 1960.

Proceedings of the Workshop on Water and Sanitation Priorities for the 1990s, November 23-26, 1991.Dhaka, Bangladesh.

Proceedings of the Workshop on Mobilization of Non-Governmental Organization in Water Supply and Sanitation, April 12-13, 1992, BRAC Rajendrapur, Bangladesh.

Proceedings of 13th Annual Scientific Conference of ICDDRB (ASCON XIII), March 14-17, 2011, Pan Pacific Sonargaon Hotel, Dhaka.

Proceedings of 12th Annual Scientific Conference of ICDDRB (ASCON XII), February 9-12, 2009, Pan Pacific Sonargaon Hotel, Dhaka.

Proceedings of 11th Annual Scientific Conference of ICDDRB (ASCON XI), March 4-6, 2007, Pan Pacific Sonargaon Hotel, Dhaka.

Newspaper, Weekly Magazine, Online Magazine

Ahmed, S. (2011, September 29). Cholera vaccine Shanchol in Bangladesh by ICDDRB has little justification. Special Report. *News from Bangladesh.* Retrieved from www.bangladesh-web.com/view.php?hidRecord=366839

Ahsan, S. (2003, October 24). ICDRRB. Discovering New Ways to Save life. *Star Weekend*. p

.4-8.

Ali, M. (2004, November). What is for the ICDDRB? Retrieved from http://www.meghbarta.org/nws/nw_main_p02b.php?issueId=9§ionId=30&articleI d=99)

Ali, M. (2005, October 2). ICDDRB's Procurement of the Independence Day Award – An Insult to the Martyrs of War of Liberation of Bangladesh. Retrieved from http://www.meghbarta.org/nws/nw_main_p02b.php?issueId=6&sectionId=14&art icleId=65

Ali, M. (2006, July 24). A Report on ICDDRB Recruitment, Failings in Research Publication. Retrieved from http://www.meghbarta.org/nws/nw_main_p02b.php?issueId=6&sectionId=30&art icleId=145

Ali, M. (2006, July 31). ICDDRB develops a Performance Enhancing Drink for the US Military in Iraq. Retrieved from http://www.meghbarta.org/nws/nw_main_p01b.php? issueId=6&sectionId=30&articleId=146

Grain crisis in bangladesh. (1973, May 13). *The Washington Post, Times Herald (1959-1973)* Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/148464413?acc ountid=14244

Govt Raises False Cholera Alarm. (April 30, 2011). *The New Age*. Retrieved from http://newagebd.net/category/fpage/

Hasan, R. (2005 July 13). Launch Tragedies: Shipping authorities, owners find them 'normal' affair. *The Daily Star*. Retrieved from http://archive.thedailystar.net/2005/07/13/d5071301044.htm

Lee, A. (2015, November 17). In Bangladesh, a Half-Century of Saving Lives with Data. *The New York Times. Exclusive Online.* Retrieved from http://opinionator.blogs.nytimes.com/2015/11/17/in-bangladesh-a-half-century-of-saving-lives-with-data/?_r=0

Mass cholera vaccination feasible in bangladesh. (2013). *PharmacoEconomics & Outcomes News,* (691), 1.

ICDDRB Executive Director Sacked. (2012, June 18). *bdnews24.com*. Retrieved from *http://bdnews24.com/health/2012/06/18/icddrb-executive-director-sacked.*

ICDDRB: Health or Killing. (1986, July 11). *Dhaka Courier*, Vol 3, Issue 1.

ICDDRB: Germ Warfare Research in Bangladesh. (May 1986). *Weekly Chinta.*

Smith, R. (2010, May 2). Richard Simth on Matlab, Bangladesh. *The BMJ Blog*. Retrieved from http://blogs.bmj.com/bmj/2010/05/02/richard-smith-on-matlab-bangladesh/

Special to The New,York Times. (1974, Jun 13). U.S. adds to refugee aid. *New York Times (1923-Current File)* Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/120126027?accountid=14244

Special to The New,York Times. (1974, Jul 09). Bangladesh: Orphan in world with no foster parents. *New York Times (1923-Current File)* Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/120104355?accountid=14244

Special to The New York Times. (1964, Feb 02). NEW TECHNIQUES BATTLE CHOLERA. *New York Times (1923-Current File)* Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/115670763?accountid=14244

Special to The New York Times. (1972, May 28). Cholera clinic in Dacca periled by cutoff in funds. *New York Times (1923-Current File)* Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/119599503?accountid=14244

Special to The New York Times. (1972, Apr 04). Bangladesh, 4 months old, is struggling for stability. *New York Times (1923-Current File)* Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/119516900?accountid=14244

Special to The New York Times. (1972, Apr 05). BANGLADESH GETS U.S. RECOGNITION, PROMISE OF HELP. *New York Times (1923-Current File)* Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/119612599?accountid=14244

Shahjahan, M. (1977, November 18) "Smuggling Antiquities worth one crore," *Weekly Bichitra*.

Universal Health Care Bangladesh Perspective. (February 12, 2015). *The Daily Star.* Retrieved from http://www.thedailystar.net/universal-health-coverage-bangladesh-perspective-64453

Yohn, T. (1971, Dec 31). Who cares about the Bengali people? *New York Times (1923-Current File)* Retrieved from http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/119112538?accountid=14244

Published Sources

Abraham, I. (1998). The Making of the Indian Atomic Bomb: Science, Secrecy, and the Postcolonial State. London and New York: Zed Books.

Abraham, I. (2000). Postcolonial Science, Big Science and Landscape. In Roddey Reid and Sharon Traweek (Eds.), Doing Science and Culture (pp. 49-70). New York, London: Routledge.

Akhter, F. (1996). Military Objectives of Cholera Research and Violation of Biomedical Ethics in the Research on Human Subjects. UBINIG Series on ICDDR,B, 1. Dhaka, 1996.

Alam, F. and Chakravarty R (2011). (Eds.), *The essential tagore*. Cambridge, Mass.: Belknap Press of Harvard University Press.

Alamgir, M. (1980). Famine in South Asia: Politics of Mass Starvation. Cambridge, Mass: Oelgeschlager, Gunn & Han.

Abu-Lughod, L. (2013). *Do muslim women need saving?*. Cambridge, Massachusetts: Harvard University Press.

Adler, P. A., & Adler, P. A. (1993). *NIDA research monograph: Longitudinal ethnography: Careers in drug trafficking.* National Institute on Drug Abuse.

Anderson, W. (2002). Postcolonial Technoscience. Social Studies of Science. 32(5-6), 643-658.

Arnold, D., 1946-. (1993). *Colonizing the body: State medicine and epidemic disease in nineteenth-century india*. Berkeley: University of California Press.

Asad, T. (1986). The concept of cultural translation in British Social Anthropology. In Clifford, J. (2010[1986]). *Writing culture : the poetics and politics of ethnography* (25th anniversary ed. / with a foreword by Kim Fortun.) 141-164. Berkeley, Calif.: University of California Press.

Asad, T. (1993). *Genealogies of religion : Discipline and reasons of power in christianity and islam*. Baltimore: Johns Hopkins University Press.

Ash, E. H. (2010). Introduction: Expertise and the early modern state. *Osiris, 25*(1), 1-24. doi:10.1086/657254

Baker, T and Simon, J. (2002). Embracing Risk. In T Baker and J Simon (Eds.). *Embracing Risk: The Changing Culture of Insurance and Responsibility* (1-25). Chicago and London: Chicago University Press.

Baqui, A. H., Yunus, M., & Zaman, K. (1984). Community-operated treatment centres prevented many cholera deaths. *Journal of Diarrhoeal Diseases Research, 2*(2), 92-98.

Barad, K. M. (2006). *Meeting the universe halfway : Quantum physics and the entanglement of matter and meaning*. Durham: Duke University Press.

Basak, S. C., & Sathyanarayana, D. (04). Community pharmacy practice in india: Past, present and future. *Southern Med Review, 2*(1), 11; 11.

Bauman, Z., 1925-. (2004). *Wasted lives : Modernity and its outcasts*. Oxford; Malden, MA: Polity; Distributed in the USA by Blackwell.

Bear, L., & Mathur, N. (04). Remaking the public good: A new anthropology of bureaucracy. *Cambridge Anthropology, 33*(1), 18; 18-34; 34.

Beck, U. (08). Living in the world risk society. *Economy and Society, 35*(3), 329; 329-345; 345.

Beck, U. (1992). *Risk society : Towards a new modernity*. London ; Newbury Park, Calif.: Sage Publications.

Bell, C. M., 1953-. (2009). *Ritual theory, ritual practice electronic resource]*. Oxford ; New York: Oxford University Press.

Biehl, J. G. (2005). *Vita : Life in a zone of social abandonment*. Berkeley: University of California Press.

Biehl, J. G. (2007). *Will to live : AIDS therapies and the politics of survival*. Princeton, N.J. ; Woodstock: Princeton University Press.

Billig, M. (1995). *Banal nationalism*. Los Angeles, London, New Delhi: Sage.

Boholm, Å. (2003). The cultural nature of risk: Can there be an anthropology of uncertainty? *Ethnos*, *68*(2), 159-178.

Boltanski, L. (1999). Distant Suffering: Morality, Media and Politics. Cambridge: Cambridge University Press.

Bosk, C., & De Vries, R. (2004). Bureaucracies of Mass Deception: Institutional Review Boards and the Ethics of Ethnographic Research. *The Annals of the American Academy of Political and Social Science, 595*, 249-263.

Briggs, C. L. (2004). Theorizing modernity conspiratorially: Science, scale, and the political economy of public discourse in explanations of a cholera epidemic. *American Ethnologist, 31*(2), 164-187.

Briggs, C. L. (2003). In University of North Carolina at Chapel Hill. Offices of Medical Education. Center of Excellence., (Eds.), *Stories in the time of cholera : Racial profiling during a medical nightmare*. Berkeley, Calif.: University of California Press.

Brock, T. D. (1988). *Robert Koch, a life in medicine and bacteriology*. Madison, WI; Berlin ; New York: Science Tech Publishers; Springer-Verlag.

Buck-Morss, S. (1977). *The origin of negative dialectics : Theodor W. Adorno, Walter Benjamin and the Frankfurt Institute*. New York: Free Press.

Burke, P. (2007). Cultures of translation in early modern Europe. In Peter Burke and R. Po-Chia Hsia (Eds.). *Cultural Translation in Early Modern Europe* (5-7), Cambridge; Cambridge University Press.

Burke, T. (1996). *Lifebuoy men, lux women : Commodification, consumption, and cleanliness in modern Zimbabwe*. Durham: Duke University Press.

Burson, J. D. (2013). Entangled history and the scholarly concept of enlightenment. *Contributions to the History of Concepts, 8*(2), 1-24.

Bunton, R. (1997). *Foucault, health and medicine*. London ; New York: Routledge.

Burton et al., (2015). Longitudinal Ethnography: Uncovering Domestic Abuse in Low-Income Women's Lives. null.

Butler, J., 1956-. (2004). *Precarious life: The powers of mourning and violence*. London ; New York: Verso.

Bunton, R. and Petersen, A. (Eds.). (2002). *Foucault, health and medicine*. Routledge.

Cañizares-Esguerra, J. (2007). Entangled histories: Borderland historiographies in new clothes? *The American Historical Review, 112*(3), 787-799.

Carpenter, C. C. J. (1992). The treatment of cholera: Clinical science at the bedside. *The Journal of Infectious Diseases, 166*(1), 2-14.

Carroll, P. (1996). Science, Power, Bodies. The Mobilization of Nature as State Formation. Journal of Historical Sociology, 9 (2), 139-167

Cash et al., (1970). A clinical trial of oral therapy in a rural cholera treatment center The American Journal of Tropical Medicine and Hygiene 19 (4) 653-656.

Castel, R. (1991). From dangerousness to risk. In G. Burchel, C. Gordon and P. Miller (Eds.) *The Foucault Effect. Studies in Governmentality* 281-298). Chicago and London: University of Chicago Press.

Chaudhuri, A. (1992). The east as a career. *New Left Review,* (40), 111-126.

Chen et al. (1999). Global Health as Public Good. In Global Public Goods. International Cooperation in the 21st Century. Oxford: Oxford University Press.

Chowdhury, Z. (2010). The Politics of Essential Drugs. The Makings of a Successful Health Strategy: Lessons from Bangladesh. Gonoprokashoni: Dhaka.

Closer, S. (2015). Pakistan's lady health worker labor movement and the moral economy of heroism. *Annals of Anthropological Practice, 39*(1), 16-28.

Collier, S. J and Ong, A. (2005). Global assemblages, anthropological problems. *Global assemblages: Technology, politics, and ethics as anthropological problems*, 3-21.

Collins, H. M. (. (2007). *Rethinking expertise*. Chicago: University of Chicago Press.

Collins, H. M., and Evans, R. (2002). The third wave of science studies: Studies of expertise and experience. *Social Studies of Science, 32*(2), 235-296.

Cueto, M. (2004). The Origins of Primary Health Care and SELECTIVE Primary Health Care. *American Journal of Public Health*, *94*(11), 1864–1874.

Cooper, A. (2015). What does health activism mean in Venezuela's barrio adentro program? understanding community health work in political and cultural context. *Annals of Anthropological Practice, 39*(1), 58-72.

Crary, J. (1999). *Suspensions of perception : Attention, spectacle, and modern culture*. Cambridge, Mass.: MIT Press.

Crook, S. (1999). Ordering Risk. In Deborah Lupton (Ed.,) *Risk and sociocultural theory : new directions and perspectives* (160-185). Cambridge ; New York: Cambridge University Press.

Curlin, G. T., Chen, L. C., & Hussain, S. B. (1976). Demographic crisis: The impact of the Bangladesh civil war (1971) on births and deaths in a rural area of bangladesh. *Population Studies, 30*(1), 87-105. doi:10.2307/2173665

Das, V. (2015). *Affliction : Health, disease, poverty*. New York: Fordham University Press.

Das, V. (2007). *Life and words : Violence and the descent into the ordinary*. Berkeley: University of California Press.

Das, V. and Dasgupta, A. (2000). Scientific and political representations: Cholera vaccine in India. *Economic and Political Weekly, 35*(8), 633-644.

Das V. and Han, C. (2016) (Eds.) *Living and dying in the contemporary world: A compendium* Oakland, California: University of California Press.

Dean, J. (1999). Risk, calculable and incalculable. In Deborah Lupton (Ed.). *Risk and sociocultural theory : new directions and perspectives* (131-159). Cambridge ; New York: Cambridge University Press.

Derickson, A. (1994). Health security for all? social unionism and universal health insurance, 1935-1958. *The Journal of American History, 80*(4), 1333-1356.

Desjarlais, D. (2016). A good death, Recorded. In Das V. and Han, C. (2016) (Eds.) *Living and dying in the contemporary world: A compendium* (648-661). Oakland, California: University of California Press.

Di Leonardo, M. (1998). *Exotics at home : Anthropologies, others, american modernity*. Chicago, Ill.: University of Chicago Press.

Douglas, M. (1982). *Risk and culture : an essay on the selection of technical and environmental dangers*. Berkeley: University of California Press.

Douglas, M., & Wildavsky, A. (1983). *Risk and culture: An essay on the selection of technological and environmental dangers*. Los Angeles, CA: Univ of California Press.

Douglas, M. (2013 [1992]). *Risk and blame*. London and New York: Routledge.

Eisenstein, H. (2009). *Feminism seduced : How global elites used women's labor and ideas to exploit the world*. Boulder: Paradigm Publishers.

Escobar, A., 1951-. (2012). *Encountering development : The making and unmaking of the third world*. Princeton, NJ: Princeton University Press.

Ewald, F. (1991). Insurance and risk. In G. Burchel, C. Gordon and P. Miller (Eds.) *The Foucault effect: Studies in governmentality* (197-210). Chicago and London: University of Chicago Press.

Ewald, F (1993). Two Infinities of Risk. In Brian Massumi (Ed.). *The Politics of everyday fear (221-228)*. Minneapolis: University of Minnesota Press.

Fabian, J. (1983). *Time and the other : How anthropology makes its object*. New York: Columbia University Press.

Fanon, F. (2004). In Philcox R., (Eds.), *The wretched of the earth*. New York: Grove Press : Distributed by Publishers Group West.

Farmer, P.(2003). *Pathologies of power : Health, human rights, and the new war on the poor*. Berkeley: University of California Press.

Fassin, D. (2006). The end of ethnography as collateral damage of ethical regulation? *American Ethnologist, 33*(4), 522-524.

Fassin, D. (2007a). Humanitarianism as a politics of life. *Public Culture : Bulletin of the Project for Transnational Cultural Studies, 19*(3), 499-520.

Fassin, D. (2007b). *When bodies remember : Experiences and politics of AIDS in south africa*. Berkeley: University of California Press.

Fassin, D. (2009). Another Politics of Life is Possible. Theory, Society and Culture, 26 (5): 44-60.

Fassin, D. (2013a). On resentment and ressentiment. the politics and ethics of moral emotions. *Current Anthropology, 54*(3), 249-267.

Fassin, D. (2013b). Why ethnography matters: On anthropology and its publics. *Cultural Anthropology, 28*(4), 621-646.

Fassin, D. (2014). True life, real lives: Revisiting the boundaries between ethnography and fiction. *American Ethnologist, 41*(1), 40-55.

Fassin, D. (2015). The public afterlife of ethnography. *American Ethnologist, 42*(4), 592-609.

Fisher, J. A and Monahan, T. (2015). Strategies for Obtaining Access to Secretive or Guarded Organizations. *Journal of Contemporary Ethnography*, 44 (6), 709-736

Fleck, L. (1979). Genesis and Development of Scientific Fact. Chicago: Chicago University Press.

FØrde, O. H. (1998). Is imposing risk awareness cultural imperialism? *Social Science & Medicine, 47*(9), 1155-1159.

Fortun, K. (2001). *Advocacy after Bhopal : Environmentalism, disaster, new global orders*. Chicago: University of Chicago Press.

Foucault, M. (1973). *The birth of the clinic; an archaeology of medical perception.* ([1st American ed.].). Pantheon Books.

Galison, P. (2004). Removing knowledge. *Critical Inquiry, 31*(1), 229-243.

Galison, P. (2010). Secrecy in three acts. *Social Research, 77*(3), 941-974,1052.

Geissler, P. W. (2013). Public secrets in public health: Knowing not to know while making scientific knowledge. *American Ethnologist, 40*(1), 13-34.

Gilbert, P. K. (2008). *Cholera and nation : doctoring the social body in Victorian England*. Albany: State University of New York Press.

Giroux, H. A. (2006). *Stormy weather : Katrina and the politics of disposability*. Boulder, Colo.: Paradigm Publishers.

Glass, R. I., Glass, R. I., Becker, S., & Becker, S. (12). Endemic cholera in rural bangladesh, 1966-1980. *American Journal of Epidemiology, 116*(6), 959-970.

Gould, E. H. (2007). Entangled histories, entangled worlds: The english-speaking atlantic as a spanish periphery. *The American Historical Review, 112*(3), 764-786.

Graeber, D. (2004). *Fragments of an anarchist anthropology*. Chicago;: Prickly Paradigm Press;.

Gross, M., & Matthias Gross. (2007). Give me an experiment and I will raise a laboratory. *Science, Technology, & Human Values, 41*(4), 613; 613.

Guhathakurta, M. (1990) The Politics of British Aid Policy Formation: The Case of British Aid to Bangladesh, 1972-1986, Dhaka: Centre for Social Studies.

Gupta, A., 1959-. (2012). *Red tape : Bureaucracy, structural violence, and poverty in india*. Durham: Duke University Press.

Halse, C and Honey, A. (2007). Rethinking ethics review as institutional discourse. *Qualitative Inquiry* 13 (3), 336-352.

Hamlin, C. (2009). *Cholera : The biography*. Oxford ; New York: Oxford University Press.

Harding, S. G. (1993). *The "Racial" economy of science : toward a democratic future*. Bloomington: Indiana University Press.

Harper, I. and Parker, M. (2014). The politics and anti-politics of infectious disease control. *Medical Anthropology, 33*(3), 198-205.

Harrison, M., 1964-. (1994). *Public health and British India : Anglo-indian preventive medicine, 1859-1914*. Cambridge ; New York: Cambridge University Press.

Hasan, M. (2005). The orientalization of gender. *The American Journal of Islamic Social Sciences, 22*(4), 26-56.

Hess, D. J. (1997). *Science studies : An advanced introduction*. New York: New York University.

Heyningen. W. E and Seal J.R .(1983). Cholera. The American Scientific Experience, 1947-1980. Colorado: Westview Press.

Heyman, B., Henriksen, M., & Maughan, K. (1998). Probabilities and health risks: A qualitative approach. *Social Science & Medicine, 47*(9), 1295-1306.

Ho, K. Z., 1971-. (2009). *Liquidated : An ethnography of wall street*. Durham: Duke University Press.

Hogle, L. F., 1953-. (1999). *Recovering the nation's body : Cultural memory, medicine, and the politics of redemption*. New Brunswick, N.J.: Rutgers University Press.

Hollan, D. W., & Throop, C. J. (2011). *The Anthropology of Empathy: Experiencing the Lives of Others in Pacific Societies*. New York: Berghahn Books.

Howell, S. (2012). *Returns to the field : multitemporal research and contemporary anthropology*. Bloomington: Indiana University Press.

Horst, H., & Miller, D. (2011). Normativity and materiality: A view from digital anthropology. *Media International Australia Incorporating Culture & Policy,* (145), 103-111.

Jasanoff, S. (Ed.). (2004). *States of knowledge: the co-production of science and the social order*. London: Routledge.

Kamal, S. G. (2007). *Local bacteria, transnational laboratory: The politics of cholera research in Bangladesh* (Order No. MR40722). Available from ProQuest Dissertations & Theses Global. (304722179).

Katz, J. (2006). Ethical Escape Routes for Underground Ethnographers. *American Ethnologist,33*(4), 499-506.

Kaufman, S. R. (2005). *And a time to die : How American hospitals shape the end of life*. New York: Scribner.

Kelly, J. D., & Kaplan, M. (1990). History, structure, and ritual. *Annual Review of Anthropology, 19*, 119-150.

Khan, F. C. (2000). A Decade of Trade Liberalization: How has Domestic Industry Fared in Bangladesh? *Journal of Bangladesh Studies*, *2*(1).

Kilbride, P. L. (2013). Longitudinal repeated ethnography: Theoretical implications for a cultural, social class and gendered understanding of children on the streets in Kenya.

Kleinman, D. L. (1998). Untangling context: Understanding a university laboratory in the commercial world. *Science, Technology, & Human Values, 23*(3), 285-314.

Kothari, U. (2005). Authority and expertise: The professionalisation of international development and the ordering of dissent. *Antipode, 37*(3), 425-446.

Kothari, U. (2006). An agenda for thinking about 'race' in development. *Progress in Development Studies, 6*(1), 9-23.

Kuhn, T. (1962). The Structure of Scientific Revolutions. Chicago: Chicago University Press.

Kumar, D. (1997). Science and the Raj. 1857-1905. Delhi, Calcutta, Chennai and Mumbai: Oxford University Press.

Luhmann, N. (1993). *Communication and social order: risk: a sociological theory*. Transaction Publishers.

Lambek, M., author. (2015). *The ethical condition : Essays on action, person, and value*. Chicago ; London: University of Chicago Press.

Lambek, M., author. (2015). In Das V., author., Fassin D., and author. (Eds.), *Four lectures on ethics : Anthropological perspectives*. Chicago: Hau.

Latour, B. (1983). Give Me a Laboratory and I will Raise the world. In K. Knorr-Cetina and M. Mulkay (Eds.), Science Observed: Perspectives on the Social Studies of Science (pp. 141-170). London, Beverly Hills and New Delhi: Sage Publication.

Latour, B and Woolgar S. (1986) *Laboratory life : The construction of scientific facts*. Princeton, N.J.: Princeton University Press.

Latour, B. (1987). *Science in action : How to follow scientists and engineers through society*. Cambridge, Mass.: Harvard University Press.

Latour, B. (1991). Technology is society made durable. In John Law (ed.), *The Sociology Monsters*, London: Routledge.

Latour, B. (1999). *Pandora's hope : Essays on the reality of science studies*. Cambridge, Mass.: Harvard University Press.

Latour, B. (2005). *Reassembling the social : An introduction to actor-network-theory*. Oxford ; New York: Oxford University Press.

Latour, B. (2014). On some of the Affects of Capitalism. Retrieved from http://www.bruno-latour.fr/sites/default/files/136-AFFECTS-OF-K-COPENHAGUE.pdf

Law, J. (1994). *Organizing Modernity.* Oxford and Cambridge: Blackwell Publishers

Lederman, R. (2006). Introduction: Anxious Borders between Work and Life in a Time of Bureaucratic Ethics Regulation. *American Ethnologist, 33*(4), 477-481.

Lock, M. M. (2002). *Twice Dead: Organ Transplants and the Reinvention of Death*. Berkeley: University of California Press.

Lupton, D. (1999). *Risk and sociocultural theory : new directions and perspectives*. Cambridge ; New York: Cambridge University Press.

Lupton, D. (2002). “Risk is part of our life”: Risk epistemologies among a group of Australians. *Sociology,* 36 (2), 317-34.

Das V. and Hand, C. (Eds.) *Living and dying in the contemporary world: A compendium* (2016). Oakland, California: University of California Press.

Macgrane, S. (2003). A Simple Solution. The Magazine of Johns Hopkins Bloomsberg School of Public Health, Spring 2003.

Macleod, R. (1987) On Visiting the “Moving Metropolis”: Reflections on the Architecture of Imperial Science. In N. Reingold and M. Rothenberg (eds.), Scientific Colonialism. A Cross Cultural Comparison. Papers from a Conference at Melbourne, Australia (217-249).Washington D.C; London: Smithsonian Institution Press.

Maes et al. (2015). Using community health workers: *Annals of Anthropological Practice, 39*(1), 42-57.

Mahalanabis et al. (2001). Oral fluid therapy of cholera among Bangladesh refugees. 1973. *Bulletin of the World Health Organization*, *79*(5), 473–479.

Mahajan, M. (2008). Science & public policy: Designing epidemics: Models, policy-making, and global foreknowledge in India's AIDS epidemic. *Science and Public Policy* 35 (8), 585-596.

Mahmood et al. (2010). Are ‘Village Doctors’ in Bangladesh a curse or a blessing? *BMC International Health and Human Rights,* 10 (18).

Majumdar, N. (2008). When the east is a career: The question of exoticism in Indian Anglophone literature. *Postcolonial Text, 4*(3)

Mamdani, M., 1946-. (2004). *Good Muslim, bad Muslim : America, the cold war, and the roots of terror*. New York: Pantheon Books 2004.

Mathur, N. (2014). The reign of terror of the big cat: bureaucracy and the mediation of social times in the Indian Himalaya. *Journal of the Royal Anthropological Institute*, *20*(S1),148-165.

Maupin, J. N. (2015). Shifting identities: *Annals of Anthropological Practice, 39*(1), 73-88.

McClintock, A. (1995). *Imperial leather: Race, gender, and sexuality in the colonial contest.* New York and London: Routledge.

Merton, R. K. (1970). Science, Technology and Society in Seventeenth-Century England. New York: Howard Fertig.

Mirzoeff, N., 1962-. (2005). *Watching Babylon: The war in Iraq and global visual culture*. New York ; London: Routledge.

Mohanty, C. (2003). “Under western eyes” revisited: Feminist solidarity through anticapitalist struggles. *Signs, 28*(2), 499-535.

McCord, C. (1978, April 8) International Research Laboratory in Bangladesh [Letter to the Editor]. The Lancet, p. 768.

McCord, C. (1978, June 3) Cholera Research in Bangladesh [Letter to the Editor]. The Lancet, p. 1207-1208.

Monahan, T., & Fisher, J. A. (2011). Surveillance impediments: Recognizing obduracy with the deployment of hospital information systems. *Surveillance & Society, 9*(1), 1-16.

Muhammad, A. (2007). Development or Destruction. Dhaka: Srabon Praksashoni.

Murphy, M. (2012). *Seizing the means of reproduction: Entanglements of feminism, health, and technoscience*. Durham, N.C.: Duke University Press.

Nader, L. (1972). Up the anthropologist: perspectives gained from studying up.

Nading, A. (2014). *Mosquito trails : Ecology, health, and the politics of entanglement*. Oakland, California: University of California Press.

Nading, A. M. (2013). ″love isn't there in your stomach": A moral economy of medical citizenship among Nicaraguan community health workers. *Medical Anthropology Quarterly*, 27 (1), 84-102.

Nandy, A. (ed) 1988. Science, Hegemony and Violence. A Requiem of Modernity. Tokyo, Japan; Delhi, Bombay, Calcutta, and Madras: The United Nations University and Oxford University Press.

Nettleton, S. (1997). Governing the risk self: how to become healthy, wealthy and wise. In Robert Bunton (Ed.,). *Foucault, health and medicine* (207-222). London ; New York: Routledge.

O'Leary et al. (2015) Oral cholera vaccines in endemic countries. *The Lancet* , Volume 386 , Issue 10001 , 1321 – 1322

O’Malley, P. (1992) Risk, power and crime prevention. *Economy and Society,* 21 (3), 252-75.

O'Reilly, K. (2012), Ethnographic returning, qualitative longitudinal research and the reflexive analysis of social practice. *The Sociological Review*, 60: 518–536

Ortner, S. B. (2010). Access: Reflections on studying up in Hollywood. *Ethnography*, *11*(2), 211-233.

Osborne, T. (1997). Of health and statecraft. *Foucault, health and medicine*, 173-188.

Pandian, A. (2009). *Crooked stalks : Cultivating virtue in south india*. Durham: Duke University Press.

Patton, C. (2010). *Rebirth of the clinic : places and agents in contemporary health care*. Minneapolis: University of Minnesota Press.

Peattie, L. (1984). Normalizing the unthinkable. *Bulletin of the Atomic Scientists, 40*(3), 32; 32.

Peterson, A. (1997). Risk, Governance and New Public Health. In Robin Bunton and Alan Peterson (Eds.) *Foucault, health and medicine*. London ; New York: Routledge.*Foucault, health and medicine*, ix-xxi.

Petryna, A., Lakoff, A., & Kleinman, A. (2006). *Global pharmaceuticals: Ethics, markets, practices*. Duke University Press.

Petryna, A. (2009). *When experiments travel : Clinical trials and the global search for human subjects*. Princeton: Princeton University Press.

Petryna, A. (2013). *Life exposed: Biological citizens after chernobyl*. Princeton, N.J.: Princeton University Press.

Philips, R. A. (1964). Water and Electrolytes Losses in Cholera. Federation Proceedings. 23: 705-12.

Pigg, S. L. (1992). Inventing social categories through place: Social representations and development in nepal. *Comparative Studies in Society and History, 34*(3), 491-513.

Pigg, S. (2001). Languages of sex and AIDS in nepal: Notes on the social production of commensurability. *Cultural Anthropology, 16*(4), 481-541.

Poe, E. (2015 [1842]). *The masque of the red death*. Litres.

Prakash, G. (1997). Another Reason. Science and the Imagination of Modern India. Princeton, New Jersey: Princeton University Press.

Prashad, V. (1994). Native Dirt/Imperial ordure: The cholera of 1832 and the morbid resolutions of modernity. *Journal of Historical Sociology, 7*(3), 243-260.

Price, D. H. (2007). Anthropology and the Wages of Secrecy. *Anthropology News*, *48*(3), 6-7.

Qadri et al., (2015). Feasibility and effectiveness of oral cholera vaccine in an urban endemic setting in Bangladesh: A cluster randomised open-label trial. *The Lancet, 386*(10001), 1362-1371.

Ricœur, P. (2004). *Memory, history, forgetting*. Chicago: University of Chicago Press.

Redfield, P. (2012). The unbearable lightness of ex-pats: Double binds of humanitarian mobility. *Cultural Anthropology, 27*(2), 358-382.

Redfield, P. (2013). *Life in crisis : The ethical journey of doctors without borders*. Berkeley: University of California Press.

Redfield, P. (2010). The Verge of Crisis. Doctors without Borders in Uganda. In Didier Fassin and Mario Pandolfi (eds.), Contemporary States of Emergency. The Politics of Military and Humanitarian Intervention, p. 173-197. New York: Zone Books.

Sen, A. (2013). What's happening in Bangladesh? *The Lancet, 382*(9909), 1966-8.

Smith et al. (2000). Contamination of drinking-water by arsenic in Bangladesh: a public health emergency. *Bulletin of the World Health Organization*, *78*(9), 1093–1103.

Singh, V. (2016). Hunger and Thirst: Crisis at Varying Thresholds of Life. In Das V. and Han, C. (2016) (Eds.) *Living and dying in the contemporary world: A compendium* (576-598). Oakland, California: University of California Press.

Rose, D. B. (2004). *Reports from a wild country : Ethics for decolonisation*. Sydney, NSW, Australia: University of NSW Press.

Rosenberg, C. E. (1987). *The cholera years : the United States in 1832, 1849, and 1866*. Chicago: University of Chicago Press.

Rohde, J. E and Northrup, R.S. (1976). Taking Science where the Diarrhoea is. CIBA Foundation Symposium, Amsterdam, Oxford and New York, 42, 339-365.

Ruxin, J.N. (1994). Magic Bullet. The History of Oral Rehydration Therapy. Medical History, 38, 363-397.

Sarder, Z. (1988). Introduction. The Revenge of Athena. In Z. Sarder (eds.), The Revenge of Athena. Science, Exploitation and the Third World. London, New York: Mansell Publishing Limited.

Schendel, W. V. (2009). *A history of Bangladesh*. Cambridge, UK ; New York: Cambridge University Press.

Schuler, S. R. (1999). The next chapter in Bangladesh's demographic success story: Conflicting readings. *Reproductive Health Matters, 7*(13), 145-153.

Scott, D. (1995). Colonial governmentality. *Social Text,* (43), 191-220.

Shiva, V. (1989). Staying Alive. Women, Ecology and Development. New Delhi, London and New Jersey: Zed Books.

Singh, B., author. (2015). *Poverty and the quest for life : Spiritual and material striving in rural India*. Chicago ; London: The University of Chicago Press.

Skolbekken, J. (1995). The risk epidemic in medical journals. *Social Science & Medicine, 40*(3), 291-305.

Smith, H. A., Lingas, E. O., Rahman, M. (2000). Contamination of Drinking-Water by Arsenic in Bangladesh: A Public Health Emergence. *Bulletin of World Health Organization*, 78 (9) 1093-1103.

Sobhan, R. (1968). *Basic democracies works programme and rural development in East Pakistan.* Bureau of Economic Research, University of Dacca; [distributed by Oxford University Press], Karachi.

Sobhan, R. (1979). Politics of food and famine in Bangladesh. *Economic and Political Weekly, 14*(48), 1973-1980.

Sobhan, R. (1982). *The crisis of external dependence: The political economy of foreign aid to Bangladesh.* Dhaka: University Press.

Star, S. (1991). Power, Technology and the Phenomenology of Conventions. On Being Allergic to Onions. In John Law (Eds.), A Sociology of Monsters. Essays on Power, Technology and Dominiation (26-55). London and New York: Routledge.

Skolbekken, J. A. (1995). The risk epidemic in medical journals. *Social science & medicine*, *40*(3), 291-305.

Street, A. (2014). *Biomedicine in an unstable place: Infrastructure and personhood in a papua new guinean hospital*. Durham: Duke University Press.

Talle, A. (2002). Returns to the Maasai: Multitemporal fieldwork and the production of anthropological knowledge. In Signe Howell (Eds.). *Returns to the field : multitemporal research and contemporary anthropology* (73-94). Bloomington: Indiana University Press.

Third World Network. (1993). Modern Science in Crisis. A Third World Response. In Sandra Harding (Eds.), The Racial Economy of Science. Toward a Democratic Future (484-518). Bloomington and Indianapolis: Indiana University Press.

Ticktin, M. I. (2011). *Casualties of care : Immigration and the politics of humanitarianism in France*. Berkeley: University of California Press.

Turner, B. S. (1997). From governmentality to risk: Some reflections on Foucault's contribution to medical sociology. In Robin Bunton and Alan Peterson (Eds.) *Foucault, health and medicine*. London ; New York: Routledge.*Foucault, health and medicine*, ix-xxi.

Van Heyningen, W. E. and Seal J. R. (1984) *Cholera : The American scientific experience, 1947-1980*. Boulder, Colo.: Westview Press.

Vandendriessche, J., Peeters, E., & Wils, K. (2015). *Scientists' expertise as performance: Between state and society, 1860-1960*

Verran, H. (2010). Number as an inventive frontier in knowing and working Australia's water resources. *Anthropological Theory, 10*(1-2), 171-178.

Vishvanathan, S. (1988). On Annals of a Laboratory State. In A. Nandy (Eds.), Science, Hegemony and Violence (pp. 257-288). Delhi: Oxford University Press.

Von Schnitzler, A. (2013). Traveling Technologies: Infrastructure, Ethical Regimes, and the Materiality of Politics in South Africa. *Cultural Anthropology*, 28: 670–693.

Water with sugar and salt. (1978). *The Lancet (British Edition), 2*(8084), 300; 300-301; 301.

Weiss, T. G. (2010). *Global governance and the UN : An unfinished journey*. Bloomington: Indiana University Press.

White, S. D. (1998). From "Barefoot Doctor" to "Village Doctor" in Tiger Springs village: A case study of Rural Health Care Transformations in Socialist China. *Human Organization, 57*(4), 480.

Whooley, O. (2013). *Knowledge in the time of cholera : The struggle over american medicine in the nineteenth century*. Chicago ; London: University of Chicago Press.

Whyte, S. R and Hardon A., (Eds.), *Social lives of medicines*. Cambridge, UK ; New York: Cambridge University Press.

Zaloom, C. (2004). The productive life of risk. *Cultural Anthropology, 19*(3), 365-391. doi:10.1525/can.2004.19.3.365

Zaminder, V. F. (2007). *The long partition and the making of modern south Asia: Refugees, boundaries, histories*. New York: Columbia University Press, 2010.

Watts, G. (2003). In Pursuit of "Humanitarian Science." British Medical Journal, 327, p.1308.

Wheeler, N. (2000). *Saving Strangers. Humanitarian Intervention in International Society.* Oxford: Oxford University Press.

Whitmarsh, I. (2013). The Ascetic Subject of Compliance: The turn to chronic disease in global health. In Joao Biehl (Eds.). *When people come first : critical studies in global health* (302-324). Princeton, New Jersey: Princeton University Press.