Working Lives of Chinese Physicians

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Abstract

China is now the world’s largest source of both patients and physicians. Yet today, several factors make the experience of being a physician in mainland China markedly different from the physician experience elsewhere, even from neighboring regions of Hong Kong and Taiwan. The Chinese Communist Party-regulated structure of the health care system—from government agencies at the state, provincial and city levels to the cadre authority structure of individual hospitals—is one of these differences. Widespread inequities in income exist in Chinese cities, where physicians in tertiary institutions earn several times the amount of those stationed at community health centers. Physicians in cities are substantially better off than their rural counterparts. Problems emerge when physicians don’t play by the rules and when the government creates incentives for doctors to cheat. In China, that was the general trend following Deng Xiaoping’s economic reforms; short on capital, public hospitals began acting more like for-profit entities, and physicians like drug salesmen. Few legal safeguards existed to protect the public, and the patient-physician relationship in China was never the same.
In summer 2009 I embarked on a journey to southern China to experience the Chinese health care system firsthand and to learn everything I could about the medical profession there. This thesis is based on three months of field work at a tertiary academic hospital in Guangzhou, the provincial capital of Guangdong and historically one of China’s most important port cities. Participant observation and interviews were my primary means of gathering data. I frame my discussion for the layman who has had no previous exposure to Chinese culture. The story I tell is of a motley group of Chinese people navigating through life in a demanding profession, one that—now more than ever—looks to the established medical tradition of the West for guidance. Some are hopeful about China’s future, others jaded, but all have something to share.

I spent eleven weeks shadowing clinicians, physician scientists, and researchers stationed at the First Affiliated Hospital of Guangzhou Medical College (the First Hospital)—mostly in areas associated with the Guangzhou Institute of Respiratory Disease (the Respiratory Institute), the hospital’s premier department. The central figure there was the academician Zhong Nanshan, a professor of respiratory medicine who has led the life of an academic superstar. Remembered by the media for his heroics in fighting SARS in 2003 and his refusal to hide from the public the government’s shortcomings in dealing with the epidemic, Dr. Zhong is now a leading proponent of medical reform in China and one of the nation’s most respected physicians.

The ethnographic parts of this thesis recount my experience as a participant observer in clinical and research settings. My first stop was the Outpatient Clinic, where I shadowed two young residents. The fast-paced atmosphere of the Outpatient Clinic not only tested their clinical knowledge, but also exposed them to the realities of medical practice in a health care system choked by inequities. I
spent the next three weeks in the Second Ward, where I observed the working relationships between physicians at different stages in their careers. One of my goals in this thesis is to examine how professional relations in the work unit had changed since the 1984 publication of an important ethnography of a Chinese hospital (Henderson Cohen, 1984). I was surprised to observe and take part in a welcoming, communal atmosphere that contrasted sharply with the work unit’s rigid authority structure. Finally, I leave the clinical arena to explore the working life of physician scientists, learning how medical research in China—sponsored heavily by the government—is distinctly tied to nationalist goals.

The last section examines Chinese physician identity as framed by lawmakers and leaders in the medical profession. In a time when moral life and its legal safeguards are evolving rapidly, medical morality and jurisprudence could radically reshape professional ethics for future generations. Rapid scientific progress in an increasingly complex field demands qualified, reliable, and moral individuals to take up the burden of medical practice. The physicians of the Respiratory Institute are the best in their specialty. Unlike many physicians in China, they have their patients’ trust, access to a vast network of academic resources, and motivation to reach the highest echelons on their field. Following closely in the footsteps of their leader Dr. Zhong, the doctors of the Respiratory Institute represent the nation’s future leaders of medicine—a profession that continues to model itself after the established Western model.

I received a Mellon Fellowship from the Penn Undergraduate Humanities Forum 2009-2010 to conduct this research.
Introduction

China’s economic miracle has captivated the international community for the past two decades. Nevertheless, our government has remained cautious and critical of the nation’s social and political institutions. Jingoists in the nineties coined the “China Threat Theory,” reflecting the American fear of a twenty-first century dominated by a Chinese superpower. Political and social unrest over persecution of local minorities and territorial disputes have ignited and continue to induce disapproval in our nation. Recent horror stories of tainted milk, fake toothpaste, and toys covered in lead-based paint have compelled many to scrutinize the once benign “Made in China” labels on consumer products. For some, a Cold War mentality resurfaces upon any discussion of the sovereignty of Taiwan, one of East Asia’s few standing democracies. Meanwhile, the American media on both sides of the political spectrum continue to feed into a hegemonic and unflattering depiction of China. In light of these things, our government’s diplomatic response is to welcome and even celebrate China’s political exiles, to spar aggressively with Beijing over monetary policy, and to maintain a healthy arms trade with Taiwan.

At the end of the day, however, the economic bonds that tie our two nations together are too big to ignore. The United States is China’s largest trading partner, and China is the second largest to the United States behind Canada. China was until recently (February 2010) the United States’ leading creditor, owning some $900 billion in U.S. Treasury securities. While Beijing could choose to stop fueling the recent economic stimulus by not purchasing American debt (much to the chagrin of our current administration), it is in China’s best interest to help revitalize the American economy and return confidence to American
consumers—the backbone of China’s export market. As Joe Klein of *TIME* Magazine described in December 2009, our two nations are “locked in an economic superdeath grip: both countries need the other to prosper.”

The problem is that our view of our most important economic partner is clouded and partial. Most Americans know practically nothing about Chinese culture and do not understand the political, philosophical, and social issues that divide our two great nations. Geographic and political barriers limit our exposure to ordinary citizens of China, while linguistic and cultural barriers inhibit our understanding of their daily lives. Furthermore, popular conceptions of China and lessons learned from the Chinese-American experience are inadequate teaching tools. In fact, public life in China is changing at such a fast rate that even naturalized Chinese immigrants with recently acquired U.S. citizenship would likely find the China they knew from a decade past unrecognizable. Without living in China, it is impossible to distinguish the real China from its darker and more familiar portrayal.

Despite the increasing prevalence of China-related news in mainstream media sources, most Americans probably don’t realize that as our government pushed for major health care reform over the past two years—finally succeeding in March 2010—so was Beijing. In January 2008 the Chinese Ministry of Health launched “Healthy China 2020” (“健康中国 2020”) as part of an effort to bring the Chinese standard of living up to a “relatively well-off level” (小康水平) and to cover all essential health care for the whole population within eleven years. The Chinese government pledged to invest $124 billion over a three-year period to achieve this reform, with most of the money going into China’s ailing primary care sector. When the plan went public in October 2008, *The Wall Street Journal* published an article about it and pondered the global significance of this
overhaul. A month later, *The Lancet* (a British medical journal), in collaboration with Peking University Health Sciences Centre and the China Medical Board (an American philanthropic organization based in New York), provided some answers. The seven-part series “Health System Reform in China” breaks down changes in China’s health system for the Western reader, comprehensively analyzes its economic foundations using data provided by the Chinese Ministry of Health (卫生部), and evaluates the health system from several disciplinary points of view.

It is a well-accepted fact that health care drives the economies of nations. At the same time, there is no standard or model by which nations can follow to build a low-cost, high-quality, and universally-accessible health care system. Every country tailors its own health care system to suit their needs and the preferences of their citizens; as a result, every health care system has its own peculiarities. One characteristic of China’s health care system, for example, is the government-regulated practice of traditional Chinese medicine (中医). Unlike the rest of the world, Americans receive health insurance through their employers. Public health researchers, economists, and policymakers find comparative study of nations’ health care systems helpful in shaping future health policy. For the purposes of their analyses, it’s as if every nation was constantly taking part of in a science experiment, whose goal is to create a health care system that balances access, quality, and cost. Now, rather than experimenting quietly in the comfort and isolation of one’s backyard, nations are looking across their fences, borrowing ideas, and engaging their neighbors. The world is now a giant health care laboratory. In a global economy, the delivery of quality and affordable medical care is no longer the sole undertaking of individual governments. Effective drugs and qualified personnel are commodities in a global marketplace,
and the free flow of cutting-edge medical technology and research methods to new regions is changing the landscape of public health.

On this note, it is important to remember that physicians—licensed medical professionals—are not just distributors of health care, reducible to data points on a plot. They are people who have made considerable investments of time and money to acquire professional knowledge. They have refined their abilities and in many countries proven their competency by passing licensing exams. The physician’s experience, however, is not consistent across cultural contexts. This thesis assumes that by eliciting the perspectives of physicians in their own cultural context, one understands what really matters to them better and how their preferences affect the people working around them. The experience of others allows us to reflect on our own.

As a college junior interested in both medicine and China, I found The Lancet study fascinating, but unfulfilling. Without experience navigating through the health system myself, I had trouble gauging the percipience of the authors’ praises and criticisms. Setting aside a lifetime of experience with American health care was even more difficult. Fortunately, I wandered into a graduate anthropology course on modern China, where I stumbled upon the field of ethnography. Anthropologists use ethnography to study cultures. Bronislaw Malinowski (1922), the father of social anthropology, wrote that the goal of ethnography is “to grasp the native’s point of view, his relation to life, to realize his vision of his world” (p. 25) While the term “native” sounded a little dated, I understood that in order to appreciate the working life of Chinese physicians at a more than superficial level, I would have to go to China and live among its people.
The prospect of returning to China to do academic research was exhilarating. In December 2008, at a casual dinner with my extended family, I shared my research interests with a relative who had connections to a small medical college in Guangzhou—better known by its colonial name, Canton. She gave me the contact information for some of her former colleagues and encouraged me to seek out opportunities to carry out my research. Putting the Mandarin I studied in high school and college to good use, I spent the next few months exchanging emails and Skype conversations with doctors from the Guangzhou Medical College (广州医学院). By March, we had a plan. By April, I found a source of funding and confirmed living arrangements with a family friend. In May, I traveled to a renowned tertiary public hospital in Guangzhou on an academic scholarship armed with a notebook, my list of physician contacts, and a spare grasp of ethnographic methods. This thesis is based on three months of field work in southern China, with participant observation and interviews as my primary means of gathering data. The story I tell is of a motley group of Chinese people navigating through life in a demanding profession, one that—now more than ever—looks to the established medical tradition of the West for guidance. Some are hopeful about China’s future, others jaded, but all have something to share.

The last important ethnography of a Chinese hospital (Henderson and Cohen’s *The Chinese Hospital: A Socialist Work Unit*) was conducted in 1979 and published in 1984. This text helped me structure my fieldwork more than any other. I did, however, consult a number of other medical ethnographies in China before and after my summer in Guangzhou. Much has changed in China since these studies were carried out (all during or before the eighties), and an update is long overdue. Kleinman (1986) warns against the dangers of generalizing
fieldwork results in one region of China to reflect the whole. I avoid unfounded
generalization where possible. In the course of my fieldwork, however, I had the
opportunity to interact with physicians from all over China.

The title of this thesis, *Working Lives*, reflects the multiplicity of elements that
shape physician identity and influence medical practice in present-day China. This thesis is deliberately focused on the experience of licensed practitioners of
medicine, and not on that of patients. It is not a critique of China’s health care
system, though it provides useful background to those unfamiliar with it. Since
the intended audience of this thesis is American, I refer to the American
physician experience where appropriate.
Orientations

Medical Practice in the United States

In the United States, physicians have traditionally functioned with great autonomy, controlled their working hours, and received higher wages relative to those in other occupations. The idea that physicians ought to be professionals with a strong foundation in science, however, is barely a century old. The 1910 publication of the Flexner Report—the seminal work that criticized the state of medical education in America and subsequently put many medical schools out of business—helped to raise the prestige of the medical profession by making training in medicine more scientific and more rigorous. Since then, aspiring doctors had to receive six to eight years of post-collegiate education and training before becoming eligible to obtain a medical license. Today, the three-part U.S. Medical Licensing Exam, designed in the Flexnerian mold and colloquially known as “the Boards,” separates legally entitled practitioners of medicine from medical school graduates.

To become a physician is to commit oneself to lifelong learning. Every state in the Union has laws and state agencies (medical boards) that require varying degrees of physician participation in approved continuing medical education (CME) programs, which may be developed by professional associations, medical education agencies, or hospitals.¹ Large, national organizations, such as the American Medical Association and specialty medical associations, help practicing physicians to keep abreast of the breakthroughs and advances in medical science that affect clinical practice.

¹ Proposed CME programs must receive accreditation by the Accreditation Council for Continuing Medical Education (ACCME).
Professional relationships characterize the working lives of American physicians. In the outpatient setting, specialists and primary care physicians share a mutually beneficial working relationship through the referral system. Primary care physicians, or generalists (including family physicians, internists, and pediatricians), act as gatekeepers whom patients must visit in order to access the services of a specialist in some health service plans. Specialists (cardiologists, nephrologists, and pulmonologists among them) in private practice draw their patient pool from referrals made by primary care physicians. A similar relationship exists in the inpatient (hospital) setting between attending and consulting physicians. “Attendings,” who are primary care physicians and/or hospitalists, bear the primary responsibility for a given hospital case. It is the responsibility of the attending physician to choose and request consultations from specialists, who are then called “consultants.” Primary care physicians must attract and keep the loyalty of patients; specialists must attract and keep that of primary care physicians. In its traditional model, the American hospital is a workbench for primary care physicians who, as independent contractors, bring in their patient pool in exchange for use of the hospital’s facilities.

Although this briefing is incomplete in many ways, it is a starting point at which to introduce the physician experience in the United States.

Working in the PRC: A Primer

In the formative years of the People’s Republic of China (the early fifties), the leaders of Chinese Communist Party rejected free-market capitalism and looked
to the nation’s northern neighbor and fellow socialist nation, the Soviet Union, as a model for economic development. A central feature of China’s planned economy (计划经济) was the housing registration system (户口系统), which restricted migration into urban areas. After the de-privatization of all Chinese land, the CCP developed the work unit (单位) as the chief mechanism for assigning administrative jurisdiction, maintaining social control, and instilling Party values in the Chinese citizenry.

In the early years of the PRC (1949-1965), the role of the work unit in urban China was beyond political or even economic: “[it gathered] together within the control of a single body all the threads of the individual’s life…the norm of work, of life, and of thought.” (Broyelle, Broyelle, & Tschirhart, 1980, p. 22) State-managed work units married the public and private lives of Chinese citizens and provided individuals with a collective identity. This was especially true in public hospitals, which were responsible for housing in-house staff and serving a Party-designated population of patients. Living in close quarters, eating the same food at the canteens, and receiving the same wages all promoted a sense of equal standing among members of the work unit community. At the same time, Party members occupied all the important administrative positions of every work unit, allowing the Party to exert direct influence on all aspects of daily life. Although the leaders of the new nation tightly managed the planned economy through the work unit, collective suffering was far more common than collective prosperity. The Three Years of Natural Disasters (三年自然灾害) from 1958 and 1961—during which an estimated 20 million Chinese died of starvation—is an apt example of this harsh reality.

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2 In crowded cities like Guangzhou, it was impossible for large work units like hospitals to provide housing for all their members. Workers not assigned housing on hospital grounds were assigned to live in outside urban neighborhoods and commuted to work, usually in the unit’s buses. (Henderson & Cohen 20)
The socioeconomic trajectory of the nation went further off-course during the Cultural Revolution (1965-1976), a mass movement initiated by Mao Zedong (毛泽东) as a political comeback device after his failed Great Leap Forward (大跃进) economic program. In a time when Mao’s following was burgeoning and political divisions within the Communist party were deepening, the Red Guards (a civilian army of youths loyal to Mao) led a sweeping attack on the “four old” elements of Chinese society—old customs, old habits, old culture, and old thinking. (Spence, 1990, 606) Radical patriotism degraded into a controlled madness at the expense of China’s intelligentsia—whom were seen as a threat to the proletarian cause—costing them their freedom, their opportunity to work, and frequently their lives. The Cultural Revolution’s aggregate devastation of the Chinese people’s collective psyche left an indelible scar in an early chapter of the history of the People’s Republic. Not surprisingly, the decade had a particularly sobering impact on the health care sector. In hospitals throughout Chinese cities, physicians (especially those who held academic and administrative positions) were subject to weekly struggle sessions led by their less educated underlings. No leading doctor was spared criticism, not even the most righteous. In a society that placed such high value on saving face, struggle sessions pushed some of the most accomplished and well-respected physicians beyond the breaking point.³

Deng Xiaoping’s Reform and Open Policy (改革开放政策) allowed foreign investment to flow into China at unprecedented rates, revitalizing the sagging socialist economy. Hoping to take part in China’s newfound prosperity before adequate safeguards and regulatory mechanisms were in place, a portion of practicing physicians cheated the system by overselling prescription drugs and

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³ One highly esteemed hospital director who had been honored by Chairman Mao and Zhou Enlai on multiple occasions “suffered through the struggle sessions during the Cultural Revolution and unfortunately passed away on January 1, 1969.” His name has since been rehabilitated and a bronze likeness of the doctor now rests on the tenth floor of the First Hospital.
services to their patients. This behavior induced market failures in the health sector, increasing unnecessary and poor quality care, escalating costs, and deprecating public health. (Lancet 1496) Some physicians became wealthy at the expense of their professional credibility and their patients’ health. Subsequent public backlash against corrupt doctors, however, detrimentally affected the fiduciary relationship that Chinese physicians share with their patients, and the problem continues to haunt the health care system even now (see “Medical Morality and Jurisprudence,” p. 87).

Henderson and Cohen (1984) provide a comprehensive description of working life at one tertiary hospital in Wuhan in 1979, a year characterized by political relaxation following the Cultural Revolution, the reopening of China to foreigners, and the beginnings of economic reform. The authors’ major conclusions are that, despite its founders’ desire to foster egalitarianism outside the Party, the work unit system continued to promote a hierarchical division of authority. Fostering strong networks of personal relations (关系) and avoiding conflict with others (and especially the authority) were the means and measure of a successful working life in the work unit, just as they had been in prerevolutionary China.

Thirty years after Henderson and Cohen’s five-month stay in Wuhan, the characteristics of Chinese work units and the operations of public hospitals have changed significantly. By the time of my visit to Guangzhou, most of the doctors who experienced or remembered the madness of Cultural Revolution had already reached the age of retirement and were no longer in practice (one exception being Dr. Zhong Nanshan). Cultural memory of hospital struggle sessions withers with each passing year; the changes that physicians of this generation remember are all connected to the market reforms. Gone are the days...
of equal pay for unequal work. Career advancement is possible without joining the Party. Physicians, nurses, other hospital personnel and their families no longer live in hospital dormitories, which hospital administrators now rent out for profit. Party members no longer micromanage all aspects of Chinese life. While Party members still occupy the administrative arms of Chinese hospitals, senior medical staff wields real decision-making power. Most importantly, the medical profession has become profitable.

For China as a whole, the reforms represented a radical departure from the hard-line idealism that fueled the Chinese Civil War and the subsequent foundation of the People’s Republic. Capitalism’s glorious return to China was accompanied by destructive side-effects that affected all work units, and the health sector was no exception. Did the economic reforms improve the working lives—not just the private lives—of Chinese physicians? The answer is not so straightforward, but it will be a recurrent theme in the sections to follow.

First Encounters
Penn Humanities Forum Mellon Undergraduate Research Fellowship, Final Paper April 2010
Ryan A. Leonard, College ’10
Arrival in Guangzhou

Guangzhou, the provincial capital of Guangdong and historically one of China’s most important port cities, is the third most populous city in the nation. As the cultural, economic, and political center of the province, Guangzhou is also home to the province’s most respected medical establishments and talented physicians. In 2003, the city took center stage in the battle against SARS as the epidemic spread from southern China across the world. The physicians, scientists, nurses, and public health personnel of Guangzhou subsequently received accolades for their success in containing the epidemic. Most immediately important, Guangzhou was where my contacts lived and worked, making it my entry point into China’s medical system.

I arrived in the City of Rams in early May and left in early August. Summer 2009 was an interesting time to be in Guangzhou. While I was there, the city was preparing for the 16th Asian Games (第 16届亚洲运动会) and the first ever Asian Para Games (亚洲残疾人运动会), scheduled for November and December 2010. Having been in Beijing the summer before the 2008 Olympics, it was the second time I witnessed the constructing frenzy of a city ill-prepared for housing an international audience and the feigned pomp on the faces of the residents. In July, riots erupted in Urumqi, the capital city of the northwestern Xinjiang province and home to a large population of Uighurs, one of the larger among China’s 55 minority groups. The ethnic clash between Han Chinese and Uighur rioters began as a protest in response to the deaths of two Uighurs during a brawl that took place in Shaoguan (a prefecture-level city just north of Guangzhou). The Chinese government uncharacteristically broadcast the story as it was unfolding, opening a window for the public to discuss politics.
The week after the international outbreak of the H1N1 virus—affectionately known as the swine flu (猪流感)—I arrived at Guangzhou East Station on a one-way ticket from Hong Kong. My subsequent exposure to Chinese public health was not a welcome one. After exiting the train, I joined in one of the eight lines leading to the customs desks. Before I could proceed forward to the customs desk, a masked quarantine officer cocked a thermometer gun at my forehead. Upon reading my slightly elevated temperature of 38°C (100.5°F), he escorted me and my belongings to a door labeled “Examination Room” (检查室) for further observation. I was told to have a seat in the row of plastic chairs lining the wall. Five other adults, all middle-aged and older, sat beside me with thermometers in their armpits. On the far wall I could just barely make out the guidelines for keeping incoming visitors in the quarantine room. 37.5°C was the official cutoff temperature for swine flu screening, so I was out of luck. The quarantine officer remained in the room as a young woman doctor instructed me to put a thermometer in my armpit. Thirty minutes later, she checked the thermometer, shook her head, and said to try again. The process repeated twice before my temperature lowered naturally and the doctor said I could leave. I had quite a story to tell to my elderly host, who was waiting patiently for me on the other side of customs.

The quarantine experience brought to mind the worldwide outbreak of SARS, the ensuing media firestorm, and the masked faces that became synonymous with the whole ordeal. Six years after Beijing’s botched attempt to cover up the severity and spread of the unknown disease, the eventual arrival of the H1N1 virus on Chinese soil once again put its public health measures to the test. For the duration of my stay in Guangzhou, the H1N1 virus was a hot topic in print media. Comparisons to the government’s handling of SARS were inevitable,
especially when news of the first H1N1 case in the city broke out. Yet this outbreak was different in several key ways. H1N1 came from Mexico and was thus a foreign disease, while the SARS epidemic was a homegrown problem. SARS caught China completely off-guard, while the country had ample time to prepare for the H1N1 virus. Since 2003, the Party has considerably relaxed restrictions on the flow of outside information into China. Also, the central government and the media (an important and highly developed arm of China’s central government, called in Chinese “propaganda (宣传)”) openly sought out the guidance of the nation’s senior medical leaders and allowed them to address the people directly. Among these leaders is academician Zhong Nanshan (钟南山院士), the man who made my Guangzhou research experience a reality (see “Pecking Order,” p.42).

**Zhong Nanshan: Voice of the Medical Community**

I first read about Dr. Zhong in a December 2009 issue of *The Lancet*. The article, “Zhong Nan-Shan: leader of clinical research in China”, was a semi-biographical sketch of the 73-year-old pulmonologist and his illustrious career in medicine. In June 2008, the acclaimed medical journal published Dr. Zhong’s randomized, double-blind, placebo-controlled study on the treatment of chronic obstructive pulmonary disease exacerbations with carbocisteine (a mucus-destroying compound considerably cheaper than the standard treatment of corticosteroids). Dr. Zhong’s team collected exacerbation data from over 700 patients at 22 different hospitals across China. The paper, *Effect of carbocisteine on acute exacerbation of chronic obstructive pulmonary disease (PEACE Study): a randomised...* 

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4 Refer to Weekend Digest 文摘周报 (2009).
placebo-controlled study, was on the shortlist for The Lancet’s “Paper of the Year” award and was subsequently voted the “People’s Choice Award” for 2008.

In China, “Zhong Nanshan” was a household name long before the PEACE study. The physician scientist was the most prominent face and most decorated hero of the anti-SARS campaign in southern China. The strength of his character was embodied in a single, critical moment in mid-April 2003, when he openly announced to reporters that the viral outbreak in Guangdong was not chlamydia (as the Ministry of Health had been claiming) but an unknown virus. He maintained that the situation was not under control, and that he and other doctors at the front lines of the SARS battle needed help from the international health community. The revelation was a political kiss of death for many high-ranking officials in the public health sector, including the head of the Ministry of Health, Zhang Wenkang. Dr. Zhong’s bravery and leadership in the face of a deadly and unknown pathogen and amidst heavy government pressure to keep the situation under wraps helped solidify his popularity throughout the country, especially among fellow physicians. Then Vice Premier Wu Yi, also the new Health Minister, surveyed the nation’s top physicians for a successor to replace Zhang Wenkang as the head of the Chinese Medical Association (中华医学会), the academic counterpart to the Ministry of Health (see “Medical Morality and Jurisprudence,” p. 103). Dr. Zhong was the clear choice. Today, Dr. Zhong is the chief officer of the CMA and arguably the most famous doctor in China.

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5 The chief virologist of the Chinese Center for Disease Control and Prevention, Dr. Hong Tao, was the first to make the chlamydia claim. According to Cao (2004), “Zhong Nanshan argued that the reaching of the chlamydia conclusion was the result of a morphological examination with an electron microscope only, and that the information derived therefrom was insufficient to make a sound scientific verdict. He contended that in order to determine a pathogen, one has to analyse the genetic characteristics, or the entire gene sequence…Clinically, the administering of antibiotics for chlamydia to the SARS patients had proven ineffective.” (p. 268)
Now, Dr. Zhong is well-acquainted to the limelight. Only after I arrived in Guangzhou, however, did I learn that Dr. Zhong is more than just a celebrity doctor (名医); he is a ranked Party official. In addition to his medical and administrative titles, Dr. Zhong served three times as a member of the National Committee of the Chinese People’s Political Consultative Conference (中国人民政治协商会议全国委员会), an advisory body that meets annually with the National People’s Congress (全国人民代表大会) (the only legislative body in China) to discuss national issues. Currently, with a new title of People’s Representative (全国人大代表), he is leading the ongoing discussion of medical reform. In a political environment where there are no untouchables, Dr. Zhong remains among the most vocal and critical of the inefficiency and mismanagement of Chinese bureaucracy. With Dr. Zhong leading the way, the medical community finally has a voice—and not just an echo.

The Medical College, the First Hospital, and the Respiratory Institute

For the better part of his professional career, Dr. Zhong’s primary work unit has been the Guangzhou Medical College (广州医学院), where he is a tenured professor and former president. The Medical College offers a wide variety of degree programs in its seven schools, which include the School of Basic Sciences, School of Humanities and Social Sciences, School of Public and Family Health, School of Nursing, and the First, Second, and Third Clinical Schools. The College, formed in 1958, regularly sends students to intern at its seven affiliated hospitals.

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6 According to the Chinese Constitution, this title should give Dr. Zhong legislative voting power. In reality, his responsibilities are much the same as when he was a regular member of the CPPCC.
7 The Party made this painfully clear when they dethroned the popular Premier Zhao Ziyang and placed him under house arrest for the rest of his life after his open endorsement of the 1989 student protests at Tiananmen Square.
Dr. Zhong’s base of operations is at the First Affiliated Hospital of Guangzhou Medical College, a municipal hospital with 1100 beds that provides comprehensive medical services for the population in South Yuexiu District. The First Hospital is located several miles away from the Medical College. In 1993, the Ministry of Health named the First Hospital as a “First Class Tertiary Hospital,” the highest grade given to public hospitals. Since then, the local and provincial governments—embodied by the Bureau of Health of Guangzhou Municipality and the Guangdong Department of Health—have honored the First Hospital as a “Civilized Work Unit” and “Civilized Hospital,” implying a model institution on multiple occasions. Every morning of my research began with a 45-minute commute by public bus or train from my residence in East Yuexiu to the First Hospital in South Yuexiu.

The most renowned specialty at the First Hospital is the department of respiratory medicine: the Guangzhou Institute of Respiratory Disease, or the Respiratory Institute for short. This is where I spent most of my time. As the name implies, the Respiratory Institute is much more than a mere hospital department; it has many departments of its own and often functions independently. Dr. Zhong is one of the few remaining first-generation members of the Respiratory Institute, which was established in 1979. He currently sits as Director of the Respiratory Institute. When I visited

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8 The First Hospital, originally named the Franco Chinoic Paul Domer Hospital, was established in 1903 along the Pearl River (a strategic position) by the French Consul for French naval officers. In 1950, shortly after the liberation of China, the French left and the hospital became a Chinese work unit, renamed the Guangzhou Worker’s Hospital. During the late sixties, in order to reflect the systemization of all the large hospitals in the city, the city government renamed the hospital the People’s Fourth Hospital of Guangzhou without making any administrative changes. The hospital’s relationship with Guangzhou Medical College began in 1974, and eight years later it received its current name.

9 For the reader’s convenience, I include a structural overview of the organization by department in the Appendix (p. 113).
during the summer of 2009, the Respiratory Institute occupied the fifth, sixth, and seventh floors of the hospital. Since I left, the Respiratory Institute has relocated into a larger twenty-floor building located directly behind the First Hospital.

Given his many duties, Dr. Zhong had little time to attend to my research directly. My main contact at the Respiratory Institute was Dr. Chen, a husky, spectacled Respiratory Institute researcher and former Ph.D. student of Dr. Zhong. At the time of my research, Dr. Chen was a lecturer on the academic track (see “Pecking Order,” p. 27). Upon his suggestion, I first met with him in a McDonald’s restaurant not far from the hospital grounds. There, we reviewed the details of my trip. He insisted on speaking English with me, probably because he thought it was a good opportunity to practice and because he wanted to make sure I understood everything.

Once my research began, it didn’t take long to see that Dr. Zhong is the heart and soul of the Respiratory Institute, and the pride of all those who have worked with him or studied under him. For many students, he is a living trophy, the region’s most beloved academic celebrity. In the open-air atrium of the campus library, there is literally a bronze bust of Dr. Zhong arranged alongside metal likenesses of the school’s most treasured academics.10 In recent years, Dr. Zhong has invested most of his energies in the construction of a world-class laboratory dedicated to research in respiratory medicine (see “Academic Medicine,” p. 77). Given his busy schedule, he has reduced his inpatient and outpatient rounds of the Respiratory Institute to once a week.

10 Candidly, Dr. Zhong is not ostentatiously proud of this honor, because he’s “not dead yet.”
In Guangzhou, everyone knows Dr. Zhong. He is regularly quoted in daily newspapers and interviewed on television. My extended family’s relationship with Dr. Zhong enabled me—an American college student with no medical background—to do field work in work units that rarely serve outsiders. Chinese people refer to this as “relying on personal connections (靠关系);” building and maintaining a strong network of relations is central to a healthy social life in China. Doing so involves giving and receiving favors over a period of time, and constant role-switching between benefactor and beneficiary. Dr. Zhong was a necessary part of the self-introduction I told to local doctors. His name was a conversation starter that validated my presence in Guangzhou. In this situation, Chinese people would say that I benefitted because of Dr. Zhong’s “big face (面子大),” or high reputation.

One of the highlights of my time in Guangzhou was the 90-minute interview I had with Dr. Zhong near the conclusion of the three-month research period. His experiences, in comparison to those of the physicians I spent the work week with, offer a larger perspective on the policy issues relevant to Chinese health care and the medical profession.
Pecking Order

“For Chinese doctors, official rank is clearly defined,” explained Dr. Qian, referring to the career ladder of the medical profession. Earlier that day, the advanced study physician from the Second Ward gave a five-minute PowerPoint presentation about a large, male patient with an unusual respiratory condition to an audience of 60 Respiratory Institute department chiefs, attending physicians, residents, and medical students. Dr. Zhong Nanshan was the primary respondent. It was Dr. Qian’s first time leading a case discussion (病历讨论), and he told me his legs were shaking the entire time. A physician’s position on the career ladder, his administrative titles, and his published research all contribute to professional esteem among colleagues and underlings. As a mere visiting physician from Dongguan (a prefecture-level city 30 miles southeast of Guangzhou) in an advanced study program, Dr. Qian had all the more reason to be nervous among the Respiratory Institute’s most decorated leaders.

The Respiratory Institute—a department with a national reputation for clinical and research excellence—attracts students and physicians from all over China to study and work there. Furthermore, the First Hospital’s affiliation with the Guangzhou Medical College gives the hospital distinction as a teaching hospital. For these reasons, I had an excellent opportunity to interact with a wide range of physicians at different stages in their careers, and observe their interactions with one another. The flowchart in the Appendix (p. 115) breaks down the clinical track for physicians in China in the year 2009, and helps distinguish some primary differences in rank between practicing physicians. The academic track (which leads to a professorship) replaces some exam and clinical requirements with more published research of a higher caliber and more
teaching experience. The purpose of this section is to define the major phases in the lives of Chinese physicians and use the stories of actual people I met in Guangzhou to bring them to life.

Medical Students (医学本科生)

As a tertiary-level teaching hospital, the First Hospital and its staff place a high priority on the education of future doctors and researchers. Guangzhou Medical College supplies and matches all fourth and fifth-year undergraduate students in the First, Second, and Third Clinical Schools with clinical rotations in departments throughout the First Hospital (as well as throughout the Second and Third Affiliated Hospitals, and dozens of other secondary and primary-level facilities across the city). Dr. Zhong’s nationally-recognized Respiratory Institute is among the most coveted spots for medical students to spend their internship period. For this reason, I interacted frequently with Chinese medical students, many of whom were my age or younger. They were present in some capacity at every workspace I visited within the Respiratory Institute—the Outpatient Clinic, the Second Ward, the Lung Function Lab, and the Haiyin State Key Laboratory. I occasionally had lunch with some of them at the hospital canteen, answered their queries about proper English grammar and American pronunciation, shared stories about medical practice in the United States, and during ward rounds asked them about clinical cases.

In China, a bachelor’s degree in medicine (B.M.) (学士) requires a minimum of five years to complete. While B.M. recipients may adopt the title of “doctor”

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11 Each “Affiliated Hospital” has a specialty that it is famous for. The Second Hospital is well-known for its neurology department, while the Third Hospital is renowned for its gynecology and pediatrics departments.
(医师), they must take a licensing exam before they are legally allowed to prescribe drugs.\textsuperscript{12} In medical college, students may choose to earn a master’s degree by passing an entrance test and studying an extra three years after their undergraduate education. To get a Ph.D., master’s students must pass another entrance test and study another three years at the college. Some undergraduate students apply directly for Ph.D. programs. Fast-track dual degree programs exist, but students must apply for these during high school.

The medical students who end up in the Second Ward are frequently students of the First, Second, and Third Clinical Schools of the Medical College. In general, medical students stationed at the First Hospital are slender, bookish, and often spectacled. They don the same white coats that all physician staff is required to wear, and each student bears a clip-on photo ID labeled with their name, department, and length of internship written in pen. Rotations last a brief three weeks, so medical students do well to carry a small notebook and pen in their front coat pockets, handy at all times. Aside from being noticeably younger than licensed physicians, medical students are far less independent, often clustering quietly in groups and making jokes with one another when the attending physician is looking the other way.

The above description could be applied to medical students from virtually anywhere. Aside from the age difference, Chinese and American medical students seem to have more in common than not. Both spend their first years of medical training learning the basic sciences before being assigned clinical rotations. Both are slighted by licensed medical staff, who grill the students with a wide range of clinical questions and chastise them when they can’t remember

\textsuperscript{12} Most unlicensed “doctors” (医师) spend a one year interning at hospitals before taking the licensing exam and subsequently becoming (执业医师). During the interim period, other physicians refer to them as “interns” (实习医师). Some clarification follows in the section “Low-level Physicians”.
the answers. On the other hand, the same medical staff will encourage the students to listen to patients’ lungs with their own stethoscopes during ward rounds, give them the responsibility to follow-up on patients, and ultimately show them firsthand the difference between theory and practice.

My most memorable experience with a Chinese medical student happened when I was stationed at the Lung Function Lab for a week. Guan, a dual degree student in his fifth year of his bachelor’s/master’s program, helped get me acclimated to the new environment with an exhaustive explanation of each respiratory test performed in the lab. A native of Guangzhou, Guan was different from the other medical students I met; he had an ardent passion for science. “I love batteries,” he told me over lunch, “and I really love the chemistry behind them. It’s hard to be a chemist in China, though.” He proceeded to tell me about his personal collection of elements, some which he obtained by questionable means from high school chemistry teachers. In an increasingly competitive and demanding environment for practicing physicians in China, research and the prospect of scientific breakthrough keeps students like Guan from abandoning the medical profession.

Masters’ and Ph.D. Students (硕士生与博士生)

Every day after lunch between 1 p.m. and 2:30 p.m., the employees of the First Hospital close their office doors to the public, retreat to break rooms and set up fold-out beds for afternoon siesta (中午小睡). At the request of the work unit’s Party Secretary, I usually spent this time of day in a small room on the fifth floor of the hospital with a handful of graduate students. For me, it was a time to listen

13 “Why can’t you remember? When you take your exams your memory will be even worse!” Dr. Zhang warned a medical student during ward rounds.
in on candid water cooler conversations about current events (such as the Uighur riots of July), clinical cases, and personal frustration with the research process. It was also a time to finish up lunch, check email, and most notably, experience sleeping in a graduate student’s makeshift bed—a single seven-foot plank atop two wooden chairs.

The life of a Chinese graduate student—even at the esteemed Respiratory Institute—is not glamorous. While I was in the Second Ward, Dr. Cui, the lone Ph.D. student on the floor, told a handful of other physicians and me, “In China, it’s really miserable being a Ph.D. student. The only people who enter Ph.D. programs are those who can’t find other work.” An advanced study physician quickly fired back at her that having a Ph.D. has its perks—notably, the shorter waiting periods between career stages and the increased professional esteem. Dr. Cui responded, “One’s diploma can’t represent one’s ability.”

In the competitive world of aspiring Chinese medical professionals, however, attaining a graduate degree—most often a Ph.D.—is key to career advancement. Any future physician who intends to lead a career in medical research would do well to have at least a master’s degree. Since the distinctions between degrees and the nomenclature can become confusing, some review of Chinese medical education is helpful here.

In the United States, we group anyone in study beyond the undergraduate level as “graduate students.” We include medical students in this grouping. As mentioned earlier, in China medical education takes place at the undergraduate level. At Guangzhou Medical College, undergraduates can also test into the

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14 A recent and widespread phenomenon among graduate students in China is the sale and purchase of fake Ph.D. dissertations over the Internet. In January 2010, The Lancet chastised the Chinese government’s blind eye towards this illegal activity. (The Lancet, 2010, 94) I discuss this issue further in the section “Academic Medicine” (p. 85).
school’s master’s and Ph.D. programs in medicine. Competitive high school students can also enter single-degree programs to get a masters’ or Ph.D. in medicine, or both (through a dual-degree (连读) program).\textsuperscript{15} To complicate things further, in Guangzhou the equivalent term for “graduate student” in standard Chinese (研究生) refers only to students on track to earn masters’ degrees.

I group together masters’ and Ph.D. students here because their experiences are similar enough. At the Respiratory Institute, first-year graduate students take part in clinical rotations (临床轮转), forming small groups with medical students and sometimes advanced study physicians. Physician staff members who lead these groups hold masters’ and Ph.D. students to higher standards of clinical knowledge, asking them more challenging questions about specific patient cases. After the first year, masters’ and Ph.D. students spend most of their graduate education working on individual research projects, operating more independently and usually seeing patients less frequently.

Most local governments in China concede that the rigor and length of the masters’ and Ph.D. programs at respectable medical colleges merit reduced time spent between stages on the career ladder. A survey of the Chinese blogosphere suggests that the reduced time spent by masters’ and Ph.D. students in residency varies considerably by province, municipality, and even hospital grade. To help clarify some of these differences, a vice chief physician at the Respiratory Institute gave me a list of Guangdong’s requirements for becoming a vice chief in 2008. In certain cases, licensed physicians with Ph.D.s can apply to become vice

\textsuperscript{15} I didn’t meet any physicians at the Respiratory Institute who jumped straight into the dual master’s-Ph.D. program after high school—a difficult feat, indeed. Dr. Chen, the physician who helped arrange my trip, did the dual-degree program following completion of his bachelor’s of medicine at the Medical College.
chief without passing through intermediate levels, so long as they complete the other requirements (see flowchart) after earning their Ph.D.s.

Perhaps the most important relationship in the education of a masters’ or Ph.D. student is the one he shares with his degree advisor. While I had little opportunity to observe this relationship directly, I shared one long conversation with a vice chief physician about her experience with her current Ph.D. advisor (博士导师), Dr. Zhong (who advises two to three Ph.D. students every year). Dr. Qin received all her postgraduate training at the Respiratory Institute, but her career path is slightly atypical. She received her bachelor’s in medicine from the Medical College and soon after serving as a resident at the Respiratory Institute’s Intensive Care Unit and Second Ward. Only after her fourth year of residency did she start seeing patients in the Outpatient Clinic. Dr. Qin took the minimum five years after getting her physician license to become an attending physician. Afterwards, she applied to the Medical College and was accepted for a dual degree graduate program (连读). After finishing her masters’ thesis on lung function, she took a couple years off to raise her new baby girl. Now in her third year under Dr. Zhong’s tutelage, Dr. Qin had much to say about her esteemed advisor.

“As a resident, though I hadn’t met him, my impression of Dr. Zhong was that he stood on higher ground than the rest of us, far above us (高高在上). As a masters’ student, I met Dr. Zhong for the first time on a 2:00pm to 9:00pm shift at the Outpatient Clinic (back when outpatient services were open that late). At 6:00pm, the students would start to show signs of fatigue. Dr. Zhong encouraged

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16 Unlike the large classes of undergraduate medical students, masters and Ph.D. programs in China are comparatively small and selective, which facilitates the advisor/advisee relationship discussed here.

17 Master’s and Ph.D. advisors at the Respiratory Institute are always upper-level physicians. If on the clinical side, they are always chief physicians. If on the academic end, they are either vice or chief professors.
us to go get dinner at the canteen to maintain our strength, while he ate nothing himself! He only took a short ten-minute break to rest and to enjoy a small carton of milk, after which he continued seeing patients. Finally, as a Ph.D. student, I saw another side of Dr. Zhong. He was very easy to talk with, and he told me that if I had any problem or difficulty, I could go to him directly for his advice.” Dr. Zhong facilitated the pairing of Dr. Qin with a Respiratory Institute professor performing research abroad in England on the same topic as her dissertation. “The special thing about Dr. Zhong is that he knows so much and knows how to give personalized advice,” Dr. Qin explained, “He always tells me that I need to improve my English, but it’s very difficult!”

Low-Level Physicians (初级医生)

Low-level physicians include interns (实习医师), newly licensed physicians (执业医师), and residents (住院医师). These three positions are transitional by design, but not mutually exclusive. A resident is a licensed physician in a residency program. As mentioned earlier, a licensed physician is a medical school graduate who has a license to practice medicine and usually a year of interning under his belt. “Intern” is the most frustrating of the three. The Chinese term usually refers to medical bachelor’s degree holders who intern at hospitals before getting a medical license. In China, students on the clinical and academic tracks both go through an internship period. Confusion erupts because Guangdong provincial law requires licensed physicians to intern one year before formally entering into residency. The academic track’s equivalent rank to the resident is assistant lecturer (助讲).
Two exams separate the three positions. The National Physician Licensing Exam (全国执业医师资格考试) is a two-day, four-part test that medical school graduates must take and pass in order to gain the legal right to prescribe drugs in China (see “Medical Morality and Jurisprudence,” p.87). In 2009, there existed 24 different versions of the exam, each tailored for different specialties. Provincial governments establish the standards for residency entrance exams and what hospitals can establish residency programs. Approved work units devise and administer the residency exam. At the Respiratory Institute, they consist of written, clinical, and interview components.

Most college graduates with bachelor degrees in medicine begin their clinical career as hospital interns. On average, they spend a year before taking the licensing exam. Masters’ and Ph.D. students, however, typically have this internship experience during their course of study—often their first year. This allows them to take the licensing exam while still a student. Licensed physicians can apply for residency after practicing medicine for a year and passing the work unit’s residency exam.

During my stay in the Respiratory Institute, I didn’t meet anyone preparing for the licensing or residency entrance exams. I did spend a considerable amount of time with two residents: Dr. Sang and Dr. Cheng (see “Clinical Practice,” p.45). At the time, both doctors were preparing to take an exam to become chief resident (住院总医师). In every sense of the word, the chief resident is a glorified low-level physician. He presides over other residents, interns, and medical students and has the last word in all matters when physicians of higher rank are unavailable. Guangdong provincial law also entitles the chief resident with a

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18 Refer to Guangdong Department of Health (1996).
didactic role to explain difficult cases to younger interns and medical students.\textsuperscript{19}

The chief resident typically performs ward rounds once a week and is on-call (值班) for 24-hour periods every three days—twice as often as regular residents. The position is good training for a very difficult entry exam—the Mid-level Physician Licensing Exam (执业中级职称晋升考试)—and great preparation for future leadership positions in the hospital.

**Advanced Study Physicians** (进修医生)

“It’s strange that you’re doing this project. Trying to understand such a complex medical system is impossible—you could take ten years and still not figure it out!” Dr. Jiang, a female advanced study physician told me one afternoon. While the flowchart doesn’t include them, advanced study physicians like Dr. Jiang are a major presence at the First Hospital. They don’t represent a single rank. Rather, they are physicians who already hold staff positions at other hospitals—usually higher level hospitals in mid-sized towns surrounding Guangzhou such as Panyu and Foshan. Given the importance of the Respiratory Institute in the region, it is a popular place for advanced study physicians to enhance their clinical abilities. Not everyone is accepted; physicians must go through a rigorous application process that includes a qualification exam. The benefits of doing advanced study at the Respiratory Institute are in the statistics; according to Dr. Zhong, more than half of the advanced study physicians in the

\textsuperscript{19} Refer to Guangdong Department of Health (1997).
history of the Respiratory Institute went on to become department directors and heads of their hospitals.

Advanced study physicians stay at the Respiratory for six months to a year, during which they continue receiving a salary from their home work unit. Dr. Jiang explained that she was in the middle of her four-month internship at the Second Ward. Afterwards, she would spend three months at the First Ward, two months in the Intensive Care Unit, and three months divided between the the Outpatient Clinic, Lung Function Lab, and the Sleep Therapy Center (see “Academic Medicine”). She added, “If you really want to understand, you should live with Dr. Liu [another jaded advanced study physician] for a year!” In practice, the responsibilities of advanced study physicians are the same as those of residents. At the Second Ward, they see patients, prescribe medicine, maintain patient charts, and take on-call shifts overnight. They present challenging cases for the entire department to probe in weekly case discussions.

At the same time, the advanced study physicians didn’t always live up to their name. The ones I met were generally less motivated and more cynical than the homegrown physicians of the Medical College. They took frequent breaks, chatted away with others, and occasionally played online computer games. Once, I witnessed Dr. Cheng (a resident, and technically a physician of lower rank) chastising Dr. Liu for joking around so much. When I spent time in the traditional Chinese medicine department, I saw an advanced study physician blatantly sleeping while the department head was lecturing to a group of medical students. In a later section, “Medical Morality and Jurisprudence,” I will come back to discussion of advanced study physicians in the work unit and give other evidence for some of their inappropriate behavior.
A rare type of advanced study physician is the community doctor (社区医生). Earlier this year during “Chronic Obstructive Pulmonary Disease and Asthma Day,” the First Hospital held a symposium for community doctors, who generally have few opportunities to advance their education. According to Dr. Zhong, the community doctors were eager to participate, but their level of knowledge was very lower (reflecting a poor educational foundation). “This problem cannot be solved by an individual hospital,” Dr. Zhong told me. “Reform of medical education would help.” To combat this inequity of knowledge, Dr. Zhong believes the government should issue a protocol requiring upper-level hospitals to provide short-term training courses for community.

**Mid-Level Physicians (中级医生)**

In China, mid-level physicians consist solely of attending physicians (主治医生). In Guangdong, a resident can become an attending physician upon attaining at least five years of clinical experience as a licensed physician (three of which have to be as a resident), and successfully passing the Mid-level Physician Licensing Exam. Most Chinese physicians who work in the inpatient setting remain at this stage for the better part of their careers due to the difficulty of the vice chief physician requirements. The academic track’s equivalent rank to the attending physician is the lecturer (讲师).

Attending physicians are the main forces of clinical care in Chinese hospitals. During my three-week stay at the Second Ward—a teaching floor—I had more trouble interacting with mid-levels, as there were fewer of them and they kept
busy most of the time. Furthermore, most of the mid-levels at the Respiratory Institute saw patients in the First Ward (a floor below me).

**Upper-Level Physicians (高级医生)**

Published research is the sine qua non of the upper-level physician. While the academic track—purposely neglected up to this point—is fraught with research requirements at every stage, clinicians can reach mid-level status with comparatively little research. To become a vice chief physician (副主任医师) in Guangzhou, however, doctors must publish clinical or scientific research of substance. For a physician practicing within Guangzhou’s city limits, the easiest way to do this is to be a main participant in a research study with the Bureau of Science & Technology of Guangzhou (广州市科技局). Then, the physician must either publish three theses, or publish two theses and be a main contributor (主要编著者) of a published book, or publish one thesis and be the main author (主要作者) or main editor (主编) of a book (as was the case with Dr. Gao from the Lung Function Lab). The academic track’s equivalent rank to the vice chief physician is the associate professor (副教授).

The relevant entry exam for prospective upper-level physicians is the Vice Chief Physician Licensing Exam (执业副高级职称晋升考试), which the provincial

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**Footnotes:**

20 “Vice chief physician” is sometimes translated as “associate consultant physician,” and “chief physician” as “consultant physician.” In addition to consulting for lower-level physicians, upper-level physicians also have their own patients for whom they are responsible.

21 The physician’s name must be within the top three names listed. Refer to Guangdong Department of Health (2008).

22 According to the Guangdong Department of Health (2008), an acceptable thesis (论文) must be related to the physician’s specialty and must include an abstract (摘要), a bank of key terms (关键词), a list of materials and methods (材料与方法), a section for results (结果), a discussion section (讨论), and a list of references (参考文献). It must satisfy the “Three Factors” (“三性”) of being scientific (科学性), progressive (先进性), and practical (实用性), and it must have an International Standard Serial Number for identification purposes. Most theses are no shorter than 2,000 characters.
government administers annually. Prospective vice chiefs in Guangdong usually need at least three years of clinical practice in their respective specialty before they can apply to become vice chief. Only the most persistent physicians attain the elite rank of chief physician, which requires an additional three years of clinical practice as a vice chief. Research requirements for chiefs include writing four theses (or two theses and a book) and leading a research study at the municipal level. Passing the Chief Physician Licensing Exam (执业正高级职称晋升考试) in one’s specialty is arguably the most difficult step.

In the inpatient setting, the role of vice and chief physicians is similar to that of consulting physicians in the United States. They provide consultation for attending physicians when a patient case requires a more specialized treatment plan. In teaching hospitals, both vice chiefs and chiefs supervise interns and residents as an instructor and mentor. Upper-level physicians frequently hold administrative positions as well. The Second Ward department director Dr. Zhang is also a chief physician by rank, and the only chief on the floor. Provincial law dictates that hospitals with residency programs should maintain the proportion of chief physicians to vice physicians to attending physicians to residents at the ratio 1:2:4:8. The purpose of the distribution is to maintain an appropriate teacher to student ratio and to make hospitals more competitive. The academic track’s equivalent rank to the chief physician is the professor (教授).

Physicians WHO Study Abroad and Return to China (留学回国医生)
The highest leadership positions at the Respiratory Institute are occupied by physicians who had some significant research experience studying abroad. Also known as “sea turtles” (海龟) (a Chinese pun on the word for “return”), physicians that study abroad and return to China usually have a much higher earning potential than their local counterparts. The extra training can separate two candidates vying for the same job, and can often trump seniority.

Dr. Zhong is one of the most successful physicians of his generation who, like other intellectuals in China, endured ten years of manual labor during the Cultural Revolution. In 1979, 43-year-old Dr. Zhong passed a test that allowed him (along with a handful of other elite doctors) to study abroad for two years at Edinburgh University in London. (Cheng, 2008) Despite linguistic difficulties and the invalidation of his Chinese medical license, Dr. Zhong ultimately learned how to perform clinical research while abroad.

Many of the middle-aged physicians at the Respiratory Institute (the second generation) are sea turtles. Dr. Zheng went to the United S. from 1994 to 1996 to participate in an advanced study program at the National Center for Toxicological Research (国立毒理研究中心) (the FDA’s internationally renowned research center). Dr. Luo and Dr. Peng from the Key Lab have similar stories. Dr. Luo studied at Kings College in London, and collaborated with local researchers to create the oral catheter device I mention in “Academic Medicine” (p. 81). Dr. Peng got his M.D. from Columbia University and established his practice in the U.S. During the outbreak of SARS in 2003, Dr. Peng was so moved by the event that he came back to Guangzhou for six months to help Dr. Zhong found the Virology Lab at Haiyin. In 2005, he went back to Guangzhou and brought with

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23 China has a rich history of sending its elite academics to Western countries for advanced study that goes back to the mid-19th century. Following the Cultural Revolution, Deng Xiaoping sent an elite group of physicians overseas.
him the shell vial method, a clinical research tool in virology new to Chinese researchers.

Earlier, I shared a description of Dr. Zhong from the perspective of one of his Ph.D. students, Dr. Qin. Dr. Qin’s experience is similar to the prodigious Dr. Gao—who is following closely the footsteps of her mentor, Dr Zheng—but has yet to research abroad for an extended period of time. After spending their youth in a nation whose educational system tends to discourage the kind of skepticism necessary for making academic inquiries, many physicians fancy the opportunity to study abroad and increase their intellectual capital for research.

The Academician (院士)

“Academician” is the highest title a scientist can receive. It is an elected position that two organizations—the Chinese Academy of Sciences and Chinese Academy of Engineering—bestow only to the nation’s brightest and most prolific contributors to the fields of science and engineering.24 Currently, there are fewer than 2,000 members in both academies combined. Dr. Zhong became a member of the Chinese Academy of Engineering in 1996 at age 60.

The day after Dr. Qian gave his patient case presentation, Dr. Zhong came down to the Second Ward to perform ward rounds and check specifically on Dr. Qian’s patient. Dr. Zhang reminded the staff at morning briefing that this was a “precious opportunity” for them to learn, and that they all should remember to

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24 Refer to the Appendix (p. 115) for the relationship between the Chinese Academy of Sciences and Chinese Academy of Engineering to the Ministry of Health.

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“respect Academician Zhong.” He also told them that making jokes in Dr. Zhong’s presence is especially impolite.

Nurses (护士)

While at the First Hospital, I narrowed my observations to those between aspiring and licensed physicians, as I had little opportunity to interact directly with other hospital personnel. Since nurses play a major role in China’s hospitals and work alongside physicians, however, their presence merits some discussion here.

As in health care systems elsewhere, the primary role of nurses in China is to perform a wide variety of health-service tasks that doctors do not or cannot undertake. These tasks include giving patients intravenous fluid, taking blood pressure, recording patient temperature, and checking on patients regularly. According to the 2008 Lancet study, China is one of the few nations that has more licensed doctors (1.9 million) than nurses (1.4 million) (Lancet 1774) Like physicians, the distribution of licensed nurses is concentrated in urban, prosperous regions. Hospitals in rural, impoverished areas compensate by hiring nurses who have not passed local and provincial licensing exams. Furthermore, 97.5% of registered nurses have only been educated up to junior college (大专) or secondary technical school level (职业学校). The study concludes that to combat the nationwide maldistribution of nurses, the government cannot merely increase admission rates of nursing schools and set higher nurse quotas for hospitals; it must also establish effective incentives to ensure that better-educated workers are willing to serve in poor counties and in rural areas. (Lancet 1781)
Previous ethnographers of Chinese hospitals (Fox, Henderson and Cohen, Kleinman) cite the Cultural Revolution as a turning point for authority relations in the work unit. In the first decades of the People’s Republic, nurses were menials with limited education, serving patients in the absence of families (who were expected to feed and care for hospitalized family members). During the Cultural Revolution, all professional titles were eschewed and replaced with “Comrade” (同志), a title that better reflected the movement’s egalitarian principles. (Henderson and Cohen 55) With the subversion of hospital status hierarchy, nurses were encouraged to perform tasks formerly restricted to physicians, such as prescribing drugs and performing surgery. They were also encouraged to partake in and often lead weekly struggle sessions against physicians. While the Cultural Revolution temporarily empowered nurses, it also caused many medical and nursing schools to close, bringing the nation’s production of trained health care workers to an abrupt halt for a brief period. To respond to the increasing demand for health care professionals, health aides with little background in the basic sciences became nurses, while in some cases nurses gained the title of “physician” (医生) without taking any formal licensing exam or even attending medical school. By the time of Henderson and Cohen’s study in 1979, the pecking order had been reestablished and the privileged status of physicians rehabilitated. Questions about educational requirements for practicing nurses reemerged, and licensing exams were reinstated.

Over 30 years following the Cultural Revolution, it seems that the relationship between doctors and nurses has reverted back to a familiar state, with nurses strictly assisting patients and physician focusing on diagnosis and treatment. At the First Hospital, nurses and physicians reside in separate subspaces, much like in the United States. The Nurse Station on the Second Ward,
for example, is physically separated from the Physician Office. Nurses rarely enter the office but rather wait by the doorway when seeking a physician’s counsel. The exception is during morning meetings, when the charge nurse on-duty for the night gives a brief status report to all the physicians and nurses on the floor. I caught physicians with their eyes closed more than once during this portion of the morning meeting, whereas they were careful not to do so when the department chief followed up with announcements. During my stay, however, I did not witness any hostilities or backhanded remarks between doctors and nurses.

Unlike the physicians, the nurses at both the Outpatient Clinic and the Second Ward primarily speak with each other in Cantonese. This linguistic preference reinforces the notion that nurses at the First Hospital are Guangdong locals, whereas many graduate students, Ph.D. students, and practicing physicians are outsiders of the province (外省人) unable to communicate in the locally preferred language (白话). Labor-intensive industries such as health care rely heavily on local human resources to serve the local population. Finally, many of the nurses I encountered at the First Hospital received college degrees from Guangzhou Medical College, indicating that they, too, are in their profession’s minority.
Clinical Practice

Finding My Place in the Work Unit

I spent my first six work weeks in qualitative study of Respiratory Institute clinicians as a participant observer, dividing my time between inpatient and outpatient settings.\(^{25}\) Afterwards, I went the First Hospital’s community medicine department for two weeks and spent several days at a few affiliated community health centers (社区服务中心). Later, I visited the Lung Function Lab and Haiyin State Key Laboratory to observe Chinese medical researchers at work (see “Academic Medicine,” p. 73). I spent my last few days shadowing a physician of Chinese medicine in the First Hospital’s TCM department (中医科).\(^{26}\) For the reader’s convenience, I include a flowchart of the Respiratory Institute’s organizational structure and a roster of the physicians I met in the Appendix (p. 116).

Anthropologist James Spradley likens the participant observer to an explorer describing a wilderness terrain. As an ethnographer in a Chinese work unit, I searched constantly for underlying cultural themes relevant to the working lives of the physicians I met. The search began with very broad questions. What really mattered to Chinese physicians? What were their immediate concerns versus their long-term goals? What thoughts did they have on the medical profession in China at large? I knew that some topics relevant to my research—such as local politics, corruption, and income distribution—were unsuitable for discussion in

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\(^{25}\) Participant observation is a qualitative research method that anthropologists, sociologists, and other professionals use in the field. Ethnography is a written account of such field work. I use the terms “participant observer” and “ethnographer” interchangeably in this thesis.

\(^{26}\) For the purposes of this thesis, I will be focusing on my experiences within the departments of the Respiratory Institute.
the work unit setting, at least if I brought them up. Through unobtrusive observation of and casual conversation with physicians in their usual work settings—the clinic and the ward—I elicited responses to the questions I cared about. This didn’t happen instantaneously. Before physicians became willing to share their personal stories with this curious young foreigner, they had to figure out with whom exactly they were engaging.

Common to all field work is a critical period that defines the role of the ethnographer vis-à-vis those around him. A good ethnographer blends in with his environment and is cognizant of the unwritten laws of the subculture. At the same time, he is never in complete control of this transformative process. In her field study of a metabolic research ward, *Experiment Perilous*, the sociologist Renee Fox describes the role of the participant observer as a “joint product of the dynamic relationships between an individual and other persons with whom he or she is interacting.” (Fox, 1974, p. 215) Thus, integral to my success as an ethnographer was the nature of my introduction to the work unit.

I coped with my outsider status in several ways. In the field, I donned the same white coat that all doctors and student interns at the First Hospital are required to wear. Dr. Chen provided me with a clip-on I.D. badge worn by all doctors at the First Hospital. Pertinent information on the badge includes a doctor’s Chinese name, his rank, his personal I.D. number, and a personal headshot. My designated title was “Researcher” (研修生), and in place of an I.D. number was my time in the work unit. The norm for doctors at the Respiratory Institute is to wear a disposable face mask (口罩) when seeing patients, so I did as well. The face mask not only protected me from airborne disease. It also hid some of my more Western features and completed my camouflage, giving credence to my identity as a temporary member of the work unit. Dressing up
like a doctor was enough to fool the patient population at the First Hospital. Often while I was walking through the hospital during business hours, patients approached me with questions about how to get to a specific department or how much longer they would be waiting to see a physician. I played along when I had the answers.

My costume wasn’t enough to convince most of the real doctors. They needed my story. Fortunately, I had little to hide. On my first day at the Respiratory Institute during a weekly patient case discussion, Dr. Zhong introduced me to a crowd of several dozen doctors and student interns as an American college student doing sociological research on the Chinese health care system. Dr. Chen also helped introduce me to the relevant personnel (frequently the heads) of each department I visited. Doctors I met reacted with a mixture of enthusiasm and surprise upon seeing me and talking with me for the first time. In general, Chinese people enjoy interacting with Westerners who can communicate well in Mandarin, the national tongue of the PRC. They often speak more candidly to foreigners than they do with locals, especially those who exhibit more than a passing knowledge of Chinese culture.

In addition, people like myself whose heritage combines Han Chinese and some other ethnicity are particularly fascinating to Chinese, who are less accustomed to (but increasingly intrigued by) interracial marriage. Thus, my language abilities, cultural competency, and family ties to Guangdong served me well in the field.

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27 In the field, I left the exact topic of my research intentionally ambiguous for practical reasons, a method I picked up from Henderson & Cohen (1984). I was able to elicit much more necessary background information by expressing a general interest in the local health care system, rather telling the Chinese physicians I had just met my intent to write a thesis about their working lives.

28 During my stay at the Second Ward, opportunities to display my own expertise were frequent, but the most significant one came up altogether by accident. In response to a question about my own career aspirations—whether or not I would become the next Dr. Zhong—I humbly responded, “Such a fate, I have not (“我没有那种命”).” Immediately, the room erupted with smiles and laughter, and one doctor remarked, “Wow, he even speaks of fate!”
Yet what was I, a young Westerner of mixed race, doing in a Chinese hospital? Specifically, why was I in their hospital? When introducing my research and the story of how I ended up in their work unit, I referred to my extended family’s relationship with Dr. Zhong. Whether knowing this put physicians I met on their best behavior or made them more receptive toward my questions isn’t completely clear (though my observations favor the latter theory). What is certain is that my connection to the Respiratory Institute’s most beloved figure was enough to justify my stay in their work unit. This was the final piece of corroborating evidence.

The Respiratory Institute’s Outpatient Clinic (呼吸所门诊)

In China, specialty clinics (专科门诊) operate on a walk-in basis and do not require referrals from primary care physicians. The Respiratory Institute’s Outpatient Clinic (which I will refer to as the Outpatient Clinic) is one of a dozen other outpatient clinics scattered throughout the first and second floors of the First Hospital. Its function is to evaluate and treat patients with acute and chronic respiratory problems that lay beyond the scope of primary care. All the clinics are crowded on any given day, but the Respiratory Institute’s is almost always at maximum capacity. Open from 8 a.m. to 12 p.m. and 2:30 p.m. to 6:00 p.m. every day from Monday to Friday, the Outpatient Clinic sees more patients on a daily basis than any other part of the Respiratory Institute. The language usually spoken between physicians and patients in the outpatient setting is
Cantonese. At the time, this was a major limiting factor in my research. When prudent, I asked the doctors I shadowed to clarify patient cases in Mandarin.

Dr. Chen assigned me to shadow Dr. Sang—a tan, lanky 29-year-old resident and an expecting father—for two weeks at the Outpatient Clinic. Midway into the shadowing period, Dr. Sang’s wife gave birth and he went on paternity leave. Dr. Chen then reassigned me to Dr. Cheng—a shorter, paler resident who would later join me on the Second Ward. As a medical student might do, I pulled up a chair and sat alongside the two doctors in one of the cramped exam areas for seven hours each day, observing their communication with patients, getting to know them personally, and waiting for good opportunities to ask questions.

The physical layout of the Respiratory Outpatient Clinic is similar to the hospital’s other clinics, consisting of two 15’ by 20’ consultation rooms (诊室) and a smaller 15’ by 6’ break room. Each consultation room has four to five separate examination areas, which are set adjacent to opposing walls. Examination areas are three-sided cubicles about 24 square feet in size, each having only enough room for a four-foot desk set flush against a partition, a single wooden chair for the patient alongside the desk, and a rolling chair for the physician on duty. Each exam area is equipped with a desktop computer, a small printer (for printing prescriptions), a bureau with blank order forms for clinical tests at different departments in the hospital, an old-fashioned sphygmomanometer for measuring blood pressure, a bottle of hand sanitizer, and a small waste basket. A large backlit screen for reading X-rays is set along one of the other walls, across from which is a set of windows. The layout is not designed for privacy or comfort.
Upon entering the First Hospital, patients take a registration number (挂号) a desk in the lobby and proceed to the waiting area outside the Outpatient Clinic. To receive care, patients must carry with them an official outpatient medical record (门诊病历) approved by the Bureau of Health of Guangzhou Municipality. If they don’t have one already, they can purchase the slim 15-page pad at the registration desk for about $0.15 USD. In the waiting area, patients find a seat in the five rows of hard plastic chairs—twenty per row—that face the clinic’s double doors. Adjacent to these doors are two TVs, one that notifies patients of their position in the queue and another that displays general health education materials. Every couple of minutes, one of the three nurses on duty will emerge from inside to call in the next patient. During high-volume periods, the nurses will set up additional chairs next to the exam areas for incoming patients to wait in. At the Outpatient Clinic, patients and physicians aren’t concerned with personal privacy and confidentiality of information, as evidenced by the openness of the clinic’s layout. Constant chatter fills the exam rooms well within earshot of others, and patients bring their families along with them as medical consultants. Questions of personal health are open for public discussion. Most shockingly, patients freely interrupt other patients in exam areas, much to the chagrin of the physician on duty. After examining a patient, physicians write notes about clinical presentation and recommended treatment in the outpatient medical record for the reference of the patient and the patient’s future health care providers. Physicians also enter the outpatient’s personal and clinical information into the First Hospital’s computer database, Neusoft e-Hospital Solutions (东软数字化医院全面解决方案), for quick reference the next time he or she comes in.29

29 The current recordkeeping system for inpatients and outpatients at the First Hospital relies on both
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When outpatients require medication, physicians at the First Hospital use a drug cataloguing database within the Neusoft program to verify prescription and dosage, and subsequently print the information on a prescription order form. A quick signature and stamp with the date and time verify the prescription’s authenticity. Patients can then go to any pharmacy in Guangzhou to get the prescription filled, though the ones on the building’s first and second floors are the most convenient. Sometimes a physician will recommend an outpatient for a CT scan, a lung function exam, or some other procedure. Since these are not walk-in services, the physician fills out the referral form and the patient goes directly to the department to schedule an appointment. According to Dr. Cheng, for every 50 patients he sees in a day, four or five of them are sick enough to admit to the First Hospital. In such cases, the doctors use a different form and the outpatient becomes an inpatient.

My first time in the Outpatient Clinic was on a Thursday afternoon during Dr. Zhong’s weekly on-duty time. At 2:25 p.m., Dr. Zhong entered with an entourage of a dozen master’s and Ph.D. students, advanced study physicians, and a middle-aged female reporter from Beijing. The lady was writing a full-length biography of Dr. Zhong and brought her camera to take photos for the upcoming publication. As patients began to trickle in, the spectacle began. Dr. Zhong went to the inner room of the clinic and began seeing patients one of the exam areas. About five other physicians (including Dr. Chen) were also seeing patients at the time, but all eyes were on Dr. Zhong. The crowd of student interns gathered close to listen in on his conversations with patients. Patients sitting in other exam

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30 Convenience comes at a cost, as indicated by the ever-present lines at the two Western medicine pharmacies on the first floor and the one Chinese medicine pharmacy on the second floor. Nevertheless, the pharmacies of the First Hospital are respectable establishments whose prices for certain drugs are comparable to those in private drugstores.
areas rubbernecked as if they had some stake in what was going on. Meanwhile, the Beijing reporter snapped away with her camera, as usual without asking permission. For Dr. Zhong, it was business as usual. The distractions didn’t faze him as he compiled his diagnoses, created teachable moments for his students, and tailored prescriptions based on patients’ ability to pay.

“Money is the biggest issue that patients face,” Dr. Sang told me one morning. “Chinese people are very simple. They look for the cheapest alternative that works.” Knowing full-well their patients’ limited ability to pay, Dr. Sang and other Respiratory Institute physicians only prescribe medications that lie within their patients’ budgets and deliberately avoid discussing all treatment options. This practice would be illegal under the laws of informed consent in our country, which require physicians to disclose all treatment alternatives for a given condition as dictated by professional medical custom. However, such a practice is fitting for physicians in China. There’s no reason to tell patients that a better treatment exists if they have no foreseeable means to pay for it. Even with this consideration, during my short time at the Outpatient Clinic, I saw at least a dozen patients leave without accepting the treatment recommended by Drs. Sang and Cheng because they couldn’t afford it. In China, private and public insurance schemes exist that lower medical fees and the cost of prescription drugs, but neither type provides much benefit to poor patients with serious illness. Furthermore, diagnostic services such as X-rays and CT scans must be paid for out of pocket (自费). When it comes to avoiding what seems to be an extraneous test and saving money for one’s family, low-income outpatients

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31 Relevant to this issue is the “one drug with many names (一药多名)” phenomenon (see “Medical Morality and Jurisprudence,” p. 105).
32 The sixth essay of The Lancet’s study of China’s health system reform provides a comprehensive review of China’s main medical insurance schemes. (Hu & others, 2008, p. 1846-1853) Dr. Chen told me the best kind of insurance in China belongs to civil servants (公务员), but that their share of the insurance cake was far too large.
usually forego additional procedures. “Sometimes, this kind of situation really makes us lose hope,” Dr. Sang told me after a very reluctant patient accepted his referral for a chest X-ray.

The patient experience of visiting the Outpatient Clinic is much like going to the Department of Motor Vehicles. While the queue system is the most obvious parallel, the clinic is also devoid of many of the comforting features of American clinics. There are no popular magazines to read, no cushy chairs to wait in, and no aquariums or foliage to gaze at. The waiting area is designed to optimize patient volume, not to make patients feel at home. There’s rarely a good time to beat the crowd, and time spent in waiting far exceeds the time spent receiving services. Dr. Sang told me, “One of patients’ greatest fears is lining up, spending time in line but not receiving care. Unfortunately, this is an unavoidable and common occurrence.” Dr. Zhong would say otherwise. Developing community health centers to create a strong primary care network would alleviate much of the burden facing China’s tertiary hospitals.

Specialty clinics at tertiary hospitals like the First Hospital always have long lines because the local population overuses their services. Dr. Cheng presented the following analogy to me: “Imagine a man of modest means traveling a great distance to eat roast duck at a fine restaurant. After looking at the menu, he is shocked to find that he could buy the same dish at a small restaurant closer to his home for half the price. He orders anyway.” Even though they can get comparable services at a community health center closer to their homes, patients still line up as early as 6:30 a.m. in the morning to see specialists at tertiary hospitals all over China. “Many patients distrust general physicians (全科医生) because of some bad experience, often due to poor quality of care,” Dr. Sang explained. “They trust physicians at the Respiratory Institute, so they keep
coming back.” He then shared a story with me of how a patient diagnosed with asthma by several general physicians at other clinics in the city came to him for evaluation. After feeling the patient’s neck, Dr. Sang immediately recommended parathyroid surgery. The patient went through with the operation, and had no further problems. Stories like Dr. Sang’s were common at the Respiratory Institute. “After a situation like that, those patients stay with you forever,” he said with confidence.

The two residents I shadowed in the Outpatient Clinic came from similar backgrounds. Both are natives of Guangzhou and grew up in the hospital work unit. Dr. Cheng’s mother was a nurse, and Dr. Sang’s mother worked at the Office of the Respiratory Institute as a secretary. The sons both graduated from the Medical College, and at the time of my research, both were vying for the position of chief resident. Dr. Sang, who sees about 30 patients every morning and upwards of 60 patients every day—told me he usually spends more time with first-time patients who are unaccustomed to his authoritative style of practice. 33 Dr. Cheng, who usually sees 40 to 50 patients a day, tended to be soft-spoken and easy going with his patients.

Drs. Sang and Cheng are members of the post-economic reforms generation—a generation well-accustomed to competition. While both doctors aspire to become medical specialists (做医学专家), the two gave me different reasons for wanting to do so. “A good soldier aspires to be a general. Napoleon said that, right?” Dr. Cheng told me when I asked him about his career goals. Dr. Sang, who, upon getting off work spends his nights slaving over research papers, said

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33 According to Yang (2009), physicians in outpatient clinics spend less than 19 seconds listening to their patients describe their symptoms before making a prescription. In the case of specialty outpatient clinics, Dr. Zhong defends that many patients don’t actually have problems that require a specialist’s attention, and therefore do not warrant more than a four to five-minute checkup.
that his motivation was primarily the higher salary. “We are very lucky to live in China after the reforms. Now, doctors’ wages aren’t low, though not nearly as high as in the U.S. They’re in the middle-income bracket (中等水平),” he explained.

The fast-paced atmosphere of the Outpatient Clinic suited the young physicians I had the privilege to shadow. It not only tested their clinical knowledge, but also exposed them to the realities of medical practice in a health care system choked by inequities. Yet for Drs. Sang and Cheng, it was the only health care system they knew. The Outpatient Clinic was also an appropriate entry point for my research, as it was where most patients began their tour of the Respiratory Institute. At the end of my two weeks in the Outpatient Clinic, I went up to the seventh floor to begin the next phase of my research.
The Second Ward of the Respiratory Institute (呼研所病房)

The Second Respiratory Patient Floor (呼二病区), otherwise known as the Second Ward (病房), is a 47-bed inpatient floor for patients with serious and often rare respiratory conditions, some that require breathing machines. Yet for many, struggling to fight life-threatening diseases and the pain they inflict on the body is only the foremost challenge. Many ward inpatients suffer from incurable financial difficulties. As a result, providing quality, tertiary care at a cost equitable for both the hospital and its patients becomes the daily mission of the ward staff.

The smallest patient rooms have two beds while the largest ones have seven. None of them have curtains for privacy. In Chinese hospitals, it is customary for patients to be accompanied by their families, who support and help them for the duration of their stay. For patients without family, the First Hospital allows a private company who employs caretakers (护工)—middle-aged women clad in orange and maroon jumpsuits—to provide entry-level care and services for a fee. The patients’ rooms are scattered throughout a dimly lit L-shaped hallway with light-blue walls and floor tiling which hugs the three-foot-high counter of the floor’s Nurse Station (护士站). Wearing white uniforms, white nursing caps, and light-blue face masks, the seven nurses who work there spend their time checking on patients, collecting vital statistics at the station’s two computers and in paper inpatient charts (住院病案), and preparing intravenous drips and other medications in the back room. Adjacent to the nurse station is the Physician Office (医生办公室), where I spent most of my time. Inside the office is a wall of

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34 At the time of my visit, the most serious patients in the Respiratory Institute were in the Yingdong Guangzhou Center of Critical Care Medicine (英东广州重症监护医学中心), also known as the Intensive Care Unit, on the hospital’s tenth floor.
lockers, a large center table surrounded by small chairs and stools, five workstations (each equipped with desktop computers), a backlit screen for reading X-rays and CT scans, a large gray cart holding the floor’s inpatient charts, and two back rooms—the On-Duty Physician Room for Men (男医生值班室) and the Director’s Office (主任办公室). The Physician On-Duty Room for Women (女医生值班室) is across from the Nurse Station, behind a pair of elevators and next to the floor’s Staff Bathroom and Water Boiler Room.

My three-week stay at the Second Ward (病房) began with Dr. Chen taking me to a morning briefing in the Physician Office and introducing me to the department director, Dr. Zhang. The stout, middle-aged man with a square jaw smiled as he shook my hand for the first time. “Hey, your Chinese is pretty good!” he exclaimed, a pleasantry familiar to any foreigner in China who can croak out a few words in Mandarin. After three weeks of staying in his department and getting to know him better, however, Dr. Zhang made a point to correct my verbal slips and teach me some Chinese idioms (成语) and local slang (口语). This was one measure of our growing relationship.

With over twenty years of clinical experience at the Respiratory Institute and as the only chief physician on the floor, the gregarious Dr. Zhang was the unquestionable leader of the Second Ward (see “Pecking Order,” p. 39). He also held the in-house position of Vice Chief of Respiratory Internal Medicine (呼吸内科副主任), second to the balding Chief Dr. Li, who was stationed a floor below on the First Ward. Dr. Zhang took a keen interest in me and my research, easing my transition into the new environment. He called me Xiao Lin (“Little Lin”) and encouraged other ward staff to do so as well. He jokingly likened me to Timo Bohr, a young German professional table tennis player who has many Chinese fans. Within the first couple days, he provided me with a locker, an unopened
tea cup, and a small case of tea leaves for me to use and enjoy during my stay in his department.

Living among physicians in the Second Ward was a refreshing break from the Outpatient Clinic in several ways. Physically, I was free from the stiff wooden chair I sat in for several hours at a time while shadowing Drs. Sang and Cheng. Linguistically, I was free to listen and often join in on conversations with ward physicians in Mandarin, the language usually spoken among the floor’s physicians. And even during the busiest of times, the atmosphere at the Second Ward was not nearly as frenetic as it was on the first floor. Doctors took the time to relax and engage in casual conversation with one another, creating a distinct sense of community. Also, the presence of more female physicians in the ward added a new dimension to the professional relationships I observed. Most importantly, the Second Ward was a teaching floor, so the upper-level physicians (one chief and three vice chiefs) shared a distinct role as teachers to the younger doctors (including two medical students, one master’s student, one Ph.D. student, three residents, eight advanced study physicians, and three mid-level physicians). The environment was conducive to learning, and I felt free to ask questions. It was also an ideal place to witness physicians at every rung of the career ladder working in together (see “Pecking Order,” p. 27).

Every morning briefing (早上开会) in the Second Ward began at 8:00 a.m. sharp with status reports from the head nurse (户长) and the physician on duty from the night before (值班医生) and an administrative update from Dr. Zhang. The status reports—usually read in monotone for the first 15 minutes of the

35 Even though many physicians on the Second Ward were locals who preferred to speak in Cantonese—what they referred to as the local vernacular (白话)—Dr. Cui (the Ph.D.), Dr. Tang (the mid-level) and most noticeably Dr. Zhang were outsiders to Guangdong province (外省人). This helps explain the predominance of Mandarin in the department. Nurses on the floor spoke mostly in Cantonese.
briefing—were dry summaries of the events of the past eight hours, and physicians rarely paid full attention. I regularly watched physicians eating breakfast, reading the paper, checking their phones, flipping through patient records, and dozing off during this part of the briefing. Sometimes cell phones went off, and the physicians answered them without leaving the room. When Dr. Zhang had the floor, however, physicians stopped what they were doing and paid attention. What he said often had direct relevance to the day’s events. He frequently reminded the staff of the importance of staying focused during the work day and making accurate diagnoses. Only on one occasion during my three weeks there did he digress and spend most of his time talking about “the most popular story on the Internet for the past few days.”

My arrival at the Second Ward coincided with a municipal government measure to prepare Guangzhou’s best hospitals for the expected influx of foreign visitors during the 2010 Asian Games. Two days before I arrived, Dr. Zhang began reading from a small booklet, 100 Sentences of Medical English for [the] Asian Games (迎亚运医学英语100句), and practicing one sentence a day with the ward’s staff during morning briefing. On my first day, Dr. Zhang requested that I, being the only native speaker in the room, lead the morning medical English sessions. I obliged, beginning my three-week stint as an English tutor in a Chinese ward. Occasionally, I found some awkward translations in the booklet and tried to make the staff aware of the mistakes. Every time I did, Dr. Zhang

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36 This was in reference to the Deng Yujiao Incident (邓玉娇事件), which occurred in May 2009. A 21-year-old waitress at a hotel restaurant in Hubei Province was arrested for killing a government official with a fruit knife after he tried to assault her. The arrest instilled widespread public unrest across China’s blogosphere and undoubtedly initiated similar conversations in other work units across the nation. While I never had the opportunity to ask Dr. Zhang of his political affiliation, he clearly expressed that the government should “listen to the People” on this issue.

37 After my appointment, one advanced study physician, Dr. Ling, approached me every day to check his pronunciation of random lists of English words.

38 Sentence #35: “Do your chest pain radiate?” (“您有放射性胸痛吗?”)
maintained that the translations must be fine: “The book was written by experts, after all.” Since we didn’t come close to finishing 100 Sentences in three weeks, before I left, I recorded myself dictating the remaining sentences on a CD and gave it to Dr. Zhang to play at their future practice sessions.

“Theory is good in theory, but in practice things can be different,” Dr. Zhang announced to a small crowd of student doctors. At 9:00 a.m., all lower-level physicians and student interns break up into small groups led by Dr. Zhang, Dr. Ye and Dr. Wu (the latter two who are both middle-aged female vice chiefs). Sitting at separate workstations in the Physician Office, the three group leaders review inpatient histories in order by bed number with their students, each of whom have been assigned a few patients to manage and follow up. The students jot down notes in small pocket notebooks while the group leaders lecture and explain subtleties in X-rays and CT scans on the computer. Group leaders also test the students’ clinical knowledge with questions about specific patient cases. When Dr. Ye leads ward review, she frequently reminds her students why they’d do well to pay attention: “Exams at every level—undergraduate, master’s, Ph.D., licensing, resident, mid-level—they’re all testing CT scan analysis!” Certainly, passing exams is of top priority for young physicians at the Respiratory Institute, as this is a key to career advancement. Ward review is also a time to train them to communicate effectively and protect their patients’ economic interests: “If a patient wants to go through with a lung transplantation, it’s up to you tell them straight how much it costs.” Group leaders reiterate the importance of maintaining good habits, such as updating patient histories regularly after ward

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39 Dr. Wu always led her group in Cantonese, so I didn’t bother to join. She usually worked with mid-level physicians.
40 One time, Dr. Zhang presented the students with an X-ray that displayed a metal coat button. He then explained to the group that patients don’t usually disrobe when they get X-rays to save time (due to the large quantity of patients seen), so physicians must remember this when they see something unusual appear on patient X-rays.
rounds and getting diagnoses right the first time. “Sometimes it takes a month before a correct diagnosis is established,” Dr. Zhang explained.

At around 10:00 a.m., ward review is usually complete and one of the upper-level physicians (usually Dr. Zhang) leads ward rounds (查房) as the attending physician. This is the only time of day that an upper-level physician checks on and talks with every patient on the floor. All doctors don face masks at the Nurse Station before entering patient rooms, and the attending physician always enters the room first (always washing his hands at the beginning of rounds, but not always after seeing each patient). One medical student is responsible for pushing the large inpatient chart cart from room to room, while another is assigned to carry around a large plug-in fan and direct the fan’s breeze at the attending physician at all times.41

Joining the crowd of medical students, graduate students, residents and advanced study physicians, I observed something much grander than a series of clinical encounters; I witnessed the practical education of a group of young Chinese physicians by their mentors in the field. The teaching process that began during ward review continues. In the course of this education, Dr. Zhang and Dr. Ye sought to do more than prepare their pupils with the clinical knowledge they needed for future exams.42 They were also instilling in them a value system that the Chinese call medical morality (see “Medical Morality and Jurisprudence,” p. 98).

41 This was the case when Dr. Zhang performed ward rounds. Dr. Ye thought it was silly to request this of a medical student.
42 Sometimes, vice chief Dr. Ye would lead ward rounds instead of Dr. Zhang. Dr. Ye’s authoritative approach to uncooperative patients was similar to that of the department director’s, though she tended to be less harsh on her pupils. Her ability to quote medical articles published by the WHO was indicative of her level of scholarship. She frequently compared medical practice in China with that in the outside world, and often made eye contact with me: “Unlike overseas, doctors in China can’t just think about curing patients.”
“[Cantonese] Leihou! Leih gam yaht dihm a? [Mandarin] How are you feeling today?” As an outsider to Guangdong in a clinical setting filled with Cantonese patients, Dr. Zhang often introduces himself using his limited Cantonese as an expression of warmth before switching to Mandarin—a language that most patients in the ward understand, but fewer speak well. In the event of a real language barrier, Dr. Zhang requests one of his students to translate for him. As he engages his patients in conversation, he takes moments to address the crowd of students that is intently watching him. He asks the patient and the patient’s assigned student physician for background information as needed. As he does during ward review, he tests his audience with clinical questions, varying their difficulty based on the individual’s level of learning. Dr. Zhang often requests medical students to check patients’ vital signs. Once he finishes his checkup, he shares his thoughts about the patient’s situation with the group before he moves on to the next patient. With every patient that Dr. Zhang sees, the size of the group following him begins to dwindle. Students drop out to stay with their patients after Dr. Zhang’s cursory check and update their charts. Patient beds of higher number (near the end of the ward hallway) are assigned to medical students and residents so that they may accompany the attending physician for the duration of the ward rounds. By the end of the rounds, only the medical students pushing the chart cart and carrying the electric fan remain.

The clinical encounter during ward rounds occasionally turns hostile, often as the direct result of the inability-to-pay scenario I presented in the previous section. One day, Dr. Zhang saw an old man who insisted he had tuberculosis,

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43 Dr. Zhang expresses visible disappointment when his students answer incorrectly. “When you learn, you have to be systematic!” he said to one medical student during ward rounds.

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demanded antibiotics, and refused further tests. When Dr. Zhang explained that the tests are absolutely necessary before he can make a diagnosis, the old man’s wife began to argue with him and accused him of cheating them. Upset with their reaction, Dr. Zhang calmly said, “Look, I’m the expert, and you’re not.” Later I asked Dr. Zhang if he ever prescribes medication to patients to satisfy their expectations, and if family members ever influence the medication he prescribes. He responded with confidence: “Disobedient patients like that are in the minority. I prescribe medication based on patient need alone, and I’m not influenced by familial pressure. I am the specialist, so I have the authority. However, I do believe that there are psychological effects of prescribing drugs, so when I’m on duty at the Outpatient Clinic, I rarely leave patients empty-handed.”

Ward rounds at the Respiratory Institute place physicians in the difficult position of negotiator with patients who have little idea of the magnitude of their conditions. One of the last patients I saw in the ward was a middle-aged man who was accompanied by his wife’s younger brother’s wife. (The relational distance came as a shock to the physicians.) The patient told Dr. Zhang that he couldn’t afford to stay in the hospital anymore, and his mother had just passed away. Dr. Zhang told him, “We have to be clear about the risks of discharging you now. You aren’t well, so we really need to run a few tests for you, and we’ll cut out the ones that aren’t so necessary to make your stay as affordable as possible.” He also told him that he’d probably need another ten days in the hospital. Unlike patients in the outpatient setting, inpatients have already fully embraced the sickness role in totality. They’ve already been assigned an attending physician, provided a hospital bed on which to lie, and given a

\[\text{44} \text{ According to } \text{The Lancet, tuberculosis is the most frequently reported infectious disease in China, with nearly 4.5 million known cases of the disease in 2010. (L. Wang, 2008, p. 1600)}\]
hospital gown to wear. It’s rational to expect them to be more receptive than outpatients to the medical advice of their attending physicians, especially considering the relative severity of their conditions. Yet the hard reality that I first saw in the Outpatient Clinic is the same in the ward; the care patients need is often beyond their means.

At 11:00 a.m., one of the doctors (usually Dr. Tang, a mid-level physician) takes lunch orders from the hospital canteen (餐厅) for the ward staff. Dr. Zhang typically finishes ward rounds between 11:30 and 11:45 a.m., and a service worker from the canteen delivers lunch boxes just before noon. The lunch hour was occasionally a time for physicians and visiting pharmaceutical representatives (医药代表) to present the merits of new pharmaceuticals on the market. Pharmaceutical representatives always provided take-out lunches (便当) with every visit, and frequently handed out pens, pocket protectors, and other forgettable freebies. Upon the request of Dr. Zhang and Chief Dr. Li, during one lunch period I delivered a short PowerPoint presentation about the American medical system for the entire staff of the First and Second Wards, which was well-received. After lunch, physicians either retire to the bunk beds of the On-Duty Physician Rooms, set up reclining chairs to sleep in the Physician Office, go home (if they live nearby) or stay awake through afternoon siesta.45 Work resumes at 2:30 p.m.

Afternoons in the Physician Office were generally quieter than the mornings. Still, every several minutes an aria of cell phone ringtones would break the silence, and it was the norm for physicians to talk on the phone with little

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45 In my last week at the Second Ward, Dr. Zhang invited me to sleep in one of the empty bunk beds in the On-Duty Physician Room for Men. Compared to the wooden plank I was using in the graduate break room, it was a joy to sleep in. Of all the physician staff of the Second Ward, only Dr. Cui regularly stayed awake during afternoon siesta.
consideration for those around them. Sometimes patients (and/or their families) wandered into the office looking for doctors to discharge them.

“Mao Zedong said ‘One is never too old to learn,’” Dr. Zhang told me one afternoon. “The medical profession is a lifelong learning process, whereas in other profession, after a certain age, people never even pick up a book!” Even though he misattributed the quote (it was actually Zhou Enlai, the PRC’s first premier and Mao’s right-hand man), I could see his point. When they weren’t seeing patients or teaching other doctors, I frequently observed upper-level physicians in the Second Ward digging into medical articles in both Chinese and English. This seemed to occupy most of their time in the afternoons.

Some number of physicians was always laboring over paper charts, which must be written in accordance with the Guangdong Department of Health’s Guangdong Province Standards for Written Medical Records (广东省病历书写规范) (a copy of which was left on the center table in the Physician Office). Dr. Ling explained to me that all patient histories kept in patient charts must be originals (原始的), or else they would be invalid in the case of a lawsuit. The histories are written in pen and should also not have more than three mistakes (miswritten characters that are crossed out) per page, or else suspicion of foul play will result. “Even though rewriting patient records is a time-consuming process,” Dr. Ling said, “it is mainly a legal precaution.”

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46 For the past several years, Dr. Zhang (along with several of his colleagues) has been attending the annual meeting of the American Thoracic Society. The Respiratory Institute has working friendships with a number of international medical organizations and sends physicians to their events to stay on the cutting edge of medicine.

47 Dr. Liu commented that the requirement is worthless and leaves less time for doctors to observe patients. This was the first time that I heard a Respiratory Institute physician bring up the law, but it would not be the last (see “Medical Morality and Jurisprudence,” p. 96).
With comparatively little work to do in the afternoon, physicians in the Second Ward were generally more talkative with me. The vice chief Dr. Wu, for example, told me her son’s girlfriend (who is my age) was having trouble adjusting to college life in America, and asked me what studying at an American college was like. She also explained how the admission and discharge process worked on the Second Ward. Upon arriving on the floor, a patient gives his portable medical record to a member of the ward staff, who places it in the patient’s newly created hospital chart. When the patient is ready to be discharged, his hospital records written during the course of his stay are removed from the chart and stapled to a cover sheet. Within 48 hours, a hospital employee will transport the packet to a heavily guarded Patient Chart Room (病人案室) on the first floor, where old charts are stored for several years. If the patient returns, the attending physician can request the retrieval of the patient chart to examine previous diagnoses. Patients are never allowed to see records on the course of illness (病程记录) or notes on the patient’s condition (病情变化); these are kept on the hospital grounds. They may request access to admission and discharge records (入院出院记录), however, which summarize the important points of the patient’s visit. A copy of the discharge record is pasted in the patient’s portable medical record, which is returned to patients when they leave the hospital.

Some doctors—almost always advanced study physicians—complained to me about their compensation. According to government standards, the base monthly salary (月工资收入) for most physicians at public hospitals (公立医院) averages around $300, which is below that of public servants (公务员) and teachers (教师). Even at China’s most famous hospital—the Peking Union Medical College (北京协和医院)—top-level specialists only receive a base salary of around $450. These
base salary numbers are a little misleading; physicians can increase their income
twofold (and sometimes more) by receiving award money (奖金) for their research.\textsuperscript{48} At the same, while the doctors at the Respiratory Institute—a
prestigious, research-oriented department of a popular city-level tertiary hospital—were living relatively well compared to doctors at primary care clinics, their hospital salaries couldn’t compare to the wealth of the first generation of entrepreneurs (who benefited the most from the market reforms). Dr. Zhang—who drives a nice car to work—spoke quite candidly with me about this point.\textsuperscript{49} “Many of my classmates from high school became engineers, and now they have started their own businesses, become their own boss, and made a comfortable life for themselves. We became doctors, and now we can only be doctors,” he lamented.

Nevertheless, most physicians in the Second Ward found satisfaction in their work, and it showed in their social interactions. When the work load lightened in the late afternoons, doctors sometimes brought in large watermelons to share with everyone. Laying out sheets of newspaper on the center table of the Physician Office, two physicians would work together to cut open the fresh fruit and distribute slices to other physicians and nurses. Much to the delight of the ward staff, vice chief Dr. He brought in large boxes of sweet lychee (荔枝) and longan (龙眼)—in season from May through July in Guangzhou—on a few particularly hot days. These fruit-eating sessions had a cathartic effect on communal morale, providing individual ward physicians an opportunity to vent their emotions after a difficult day at work.

\textsuperscript{48} For a more complete discussion of physician salary in China, refer to “Medical Morality and Jurisprudence,” p. 92.

\textsuperscript{49} Ironically, just a few days early, Dr. Cheng reminded me to “be nice to Dr. Zhang; he is a very rich man!”
On two occasions, I went out with ward physicians for a banquet-style dinner—the prototypical Chinese social gathering—after the work day ended. Both times, we walked a couple blocks from the First Hospital, passing through Bar Street (酒吧街) (Guangzhou’s biggest nightclub district) and eating at a nearby Sichuanese restaurant (whose cuisine is famous in China for its spiciness). The first time, the group included all of the advanced study physicians, Dr. Cui the Ph.D., and vice chief Dr. He. In general, the group included the ward’s more playful physicians and surprisingly, Dr. He was the most playful of them all. They ordered a wealth of dishes and several bottles of wine, while one of the advanced study physicians brought his own bottle of clear distilled spirits (白酒). After clarifying my role as their honored guest (贵客), they proceeded to urge food and drink upon me (劝菜劝酒), a typical Chinese gesture of warmth (热情). They were impressed by my capacity for rice and my tolerance for alcohol (酒量), attributing the latter to my Irish blood. The night was complete with several rounds of drinking games and group photos.

Conspicuously absent from the first shindig was Dr. Zhang, who wasn’t pleased when he found out during the second dinner that he wasn’t invited to the first one. Dr. He did not attend the second dinner, but everyone else who did behaved better with their boss around. My role as guest of honor was the same, and this time Dr. Zhang led the social rituals. The second time lacked many of the antics of the previous dinner, but everyone was very grateful when the department director picked up the entire tab.

During my stay at the Second Ward, I discovered that sports are an important part of life at the Respiratory Institute. For the past several years, the Respiratory Institute has organized several teams of doctors to compete against one another in a basketball tournament for the prized “Nanshan Cup” (not surprisingly
named in honor of Dr. Zhong). During the off-season, physicians reserve time at the Guangdong Sports Center—which is closed to the public and is also a training site for China’s Olympic soccer team—to play pick-up basketball games on Friday nights. I went to play a couple of times, and proceeded to get shamed by Dr. Zhang, Dr. Cheng, Dr. Zheng, Dr. Li and other older men on the court. The reader should know that temperatures in Guangzhou average around 85°F on summer nights, with humidity nearing 100% every day. When I had to sit out and catch my breath, Dr. Li told me not to worry about it: “We’ve been playing every week for 15 years, so we’re used to it.”

Beyond basketball, table tennis is also popular among the staff of the Respiratory Institute. On Tuesday nights, physicians will go to a presentation room above the hospital canteen and set up a couple ping-pong tables. The female attending physician Dr. Tang is the best table tennis player from the Second Ward (followed closely by Dr. Zhang) and one of the top players in the whole hospital. While I scraped by with a victory in my table tennis match against advanced study physician Dr. Liu, I was beaten handily by Dr. Tang and Dr. Zhang.

On my last day in the ward, I joined Dr. Zhang and most of the other upper and mid-level physicians for a Western buffet lunch at the White Swan Hotel, one of Guangzhou’s premier hotels located just a couple miles east of the First Hospital. This was the last and most extravagant of the recreational activities I experienced while stationed at the ward, and it gave me an opportunity to reflect on the success of my research. Did my status as an exotic foreign visitor disrupt the natural order of the work unit? Did the special treatment I received from Dr. Zhang negatively impact my interactions with others? The overwhelming evidence suggests that the answer to these questions
is no. I developed good rapport with many other physicians in the ward (the advanced study physicians), which allowed me to elicit information about the professional relationships in the work unit from several different perspectives.

As is customary in formal Chinese occasions, I took a group photo with Dr. Zhang and the rest of the staff before leaving the Second Ward. I bade them farewell and thanked them for the special opportunity to take part in their working lives.
Academic Medicine

Production of quality academic research in the sciences is one criterion for measuring a nation’s degree of development. In recent years, China has taken this measure very seriously. Following his ascension to power in 2002, President Hu Jintao (胡锦涛) has stressed as the hallmark of his administration’s policies the Scientific Development Concept (科学发展观). Its goal is to continue China’s trajectory of economic development while maintaining a socially-conscious collective spirit of “putting people first” (“以人为本”), in the long-term pursuit of a harmonious society (和谐社会). As a result, the government has loaded scientific research with financial incentives. In addition to domestic investments, considerable improvements in the working environment of the nation’s most accomplished clinicians and medical researchers are intimately linked to the globalization of the Chinese economy.

China’s entry into the WTO in 2001 was a major turning point for international business. Foreign companies found entering China’s domestic market considerably easier, and the importation and exportation of a wide range of products and technologies throughout the country increased. In the past decade, for example, medical device companies such as Siemens and Philips have taken advantage of this opportunity to expand their market share and bring a new wave of medical technology to Chinese soil.\[^{50}\] Generous investment in academic medicine is coming from inside and outside of China. Increased accessibility of

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\[^{50}\] In 2005, Haiyin’s radiology department was among the early adopters of PET scan technology; such devices are now being used in tertiary hospitals throughout China.
such technologies has enabled physician scientists at the Respiratory Institute to engage in award-winning medical research.\footnote{At the same time, one should be cautious not to overstate the impact of such investments on the millions of practicing physicians who are not employed at tertiary institutions.}

This section will introduce the state of academic medicine in China, drawing from my experiences with physician scientists at the Respiratory Institute to illustrate their pursuit of the national goal of scientific development. The Respiratory Institute is not only the most prominent clinical department of a tertiary teaching hospital. It is also a highly academic environment in which basic science research is integrated with clinical services on a daily basis. The research wing of the Respiratory Institute contains a dozen laboratories whose facilities are located on both the grounds of the First Hospital and those of the Haiyin Branch of the First Affiliated Hospital of Guangzhou Medical College (广州医学院第一附属医院海印分院) a few miles away (see “Appendix,” p. 113). My foray into the Chinese world of medical science research began in the Lung Function Lab.

**The Lung Function Lab** (肺功能室)

Located on the fifth floor of the First Hospital, the Lung Function Lab provides outpatient and inpatient services by appointment only. According to the large poster outside, the lab serves around 10,000 patients every year. Once inside the main room of the lab (which is roughly the size of one of the Outpatient Clinic’s exam rooms), physicians and technicians (技术员) run a series of lung function tests using one of four spirometric devices. Spirometry (肺活量测定法) is a medical screening test that measures various aspects of breathing.
and lung function. Physicians and technicians use spirometers attached to computer stations to record the amount of air a patient inhales and exhales and the rate at which air moves in and out of lungs. Many spirometric tests require patients to perform a forced expiratory maneuver (用力呼气) to reach peak expiratory flow, expelling air with maximum speed and effort after taking a deep breath. If successful, the relevant data is immediately plotted on a graph (a spirogram), printed out and added to the patient’s chart for the reference of the attending physician. If not, the process is repeated. While I only spent a brief week with the physicians and technicians of the Lung Function Lab, it was enough to see this process several dozen times. I was also able to observe some of the professional relationships I first saw during my stay in the Second Ward.

The head of the lab, Dr. Zheng (a ranking professor and master’s student advisor), was rarely present during clinical hours. In his stead was his protégé, a talented young woman named Dr. Gao. She spoke Cantonese, Mandarin, and English fluently, and was very helpful in explaining the basics of spirometry and how to read spirograms. When I met her in July 2009, Dr. Gao already held the rank of vice chief and was widely published in the field of lung function. She and Dr. Zheng co-authored *Practical Guide to Pulmonary Function Testing* (《肺功能检查实用指南》), which recommends standards for hospitals carrying out lung function training programs. She also led a bioengineering project that designed and produced a disposable respiratory filter (一次性呼吸过滤器) for lung function examinations according to the standards required by the American Thoracic Society and the European Respiratory Society, at a cost significantly cheaper than the usual imported ones. Finally, Dr. Gao manages the Respiratory

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52 Sometimes, technique is a factor in a successful lung function test. Dr. Gao uses a particularly interesting method to improve the accuracy of her patients’ spirograms. She grabs a patient’s sleeves and lifts up her arms during inhalation, and pushes the patient forward during exhalation (while holding on).
Institute’s Lung Function Website, which contains free downloads of lung function PowerPoint lectures and information about the Lung Function Continuing Medical Education Session (肺功能继续教育学习班) hosted by the Respiratory Institute in November 2009.

“Take a deep breath…and…BLOW BLOW BLOW BLOW BLOW! MAINTAIN MAINTAIN MAINTAIN MAINTAIN…and breathe!” This was the instruction that doctors and physicians—with individual variations—gave patients during spirometry testing, and it became a familiar mantra during my stay in the Lung Function Lab. Physicians and technicians learned to perform the spirometry exams quickly, and probably before they completely understood them. At the beginning of that week, Dr. Gao took 45 minutes to give a PowerPoint lecture to a group of Lung Function Lab interns—a medical student, two advanced study physicians, and one nurse—about the basic science behind interpreting spiromgrams, and ultimately about how to make a diagnosis. On every new slide, she tested Guan (the medical student) on the material being presented. A sample question would be, “If the spirogram shows a low forced expiratory volume in the first second (第 1 秒用力呼吸容积), a low forced vital capacity (用力肺活量), and a high ratio (比值) between the two, what’s the diagnosis?” When Guan gave the incorrect answers, Dr. Gao was stern with him and muttered, “Tomorrow you had better get it right.” Later, she explained to me that short sessions like this were good practice for when she goes down to community hospitals to teach primary care physicians.

The Lung Function Lab is a particularly good example of a Chinese clinical research department designed in a Western mold. The four spirometric devices used in the lab on a daily basis—the Vmax229, the MS-IOS, the BodyBox5500, and the QuarkPFT—were all imports from Western countries (the United States,
Germany, Belgium and Italy, respectively). Lung function reference materials and protocols published by professors and physicians from Western medical schools in English filled a large bookshelf in the lab. Dr. Gao spent a significant amount of time testing out new clinical technologies, such as a Chinese-made electronic sphygmomanometer (blood pressure reader). When taking an electrocardiogram of one patient in the Test Subject Reception Room (受试者接待室) (a side room of the lab), she used an English software module to walk her patient and herself through the process. “We still have much to learn from Western nations, particularly the U.S., England and Australia,” Dr. Gao concluded.

Dr. Gao explained to me that lung function technology has existed in China since the fifties, and has been an integral part of the Respiratory Institute since its inception. Dr. Gao hopes that her and Dr. Zheng’s Practical Guide to Pulmonary Function Testing, which is based on longstanding Western spirometry standards, helps to establish similar standards in China. “Our long-term goal is to bring this technology to community hospitals, following the American model of primary care physicians,” she explained. The research aspect of the Lung Function Lab—and its primary contribution to academic medicine—not only concerns establishing procedural standards for spirometric testing in hospitals throughout the nation, but compiling enough clinical data to develop diagnostic standards tailored for Chinese patients. As the only available standards for lung function diagnosis are imported from studies of Caucasians in Western countries, the scope of their applicability is limited. To combat the cohort effect—which states that population characteristics of “normal” subjects evolve over time due to

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53 Lung volumes are smaller in Asians compared to Caucasians. (Zheng & Zhong, p. 482) In addition to differences across ethnicity, Drs. Zheng and Zhong found in their 2002 lung function study that predicted lung volumes of northern Chinese are larger than those in southern China.
nutritional, environmental and other factors—researchers need to periodically update reference equations for lung function tests using a stratified population, the same instruments and standardized testing procedures. This is Dr. Zheng and company’s working contribution to academic medicine in China. It’s not cutting-edge research, but it’s just as valuable for the accurate treatment of millions of Chinese with chronic respiratory diseases.

Haiyin State Key Laboratory

Located across the Zhujiang River and operating since 2001, the Haiyin Branch is an extension of the First Hospital that caters to the patient population of northern Haizhu District. In addition to having basic outpatient and inpatient services, Haiyin is home to centers of minimally invasive surgery, hematology and oncology, as well as a number of research departments owned and operated by the Respiratory Institute. I spent two weeks in the State Key Laboratory of Respiratory Disease (呼吸疾病国家重点实验室), which occupies Haiyin’s 14th, 15th, and 16th floors.

The title of “State Key Laboratory” is a high honor given to established research labs that apply to undertake national-sponsored scientific research. This is a difficult title to acquire, as it reflects the ability of a lab’s researchers to compete at an international level. Once awarded, key lab facilities exist to serve the State by providing scientific data that support new methods of research and engaging in academic exchange with international organizations. The operational goal (and slogan) of key labs is to create an environment that is open, on the move, united, and competitive (“开放、流动、联合、竞争”). Most key lab facilities emphasize the application of basic sciences in experimental design. The
Ministry of Science and Technology (科技部) annually evaluates the performance of key lab facilities by project to determine funding for the next year. The most important research grants for key labs are the 973 and the 863. The 973, the most generous government grant for researchers investigating major scientific questions directly tied to the social development needs of the State, annually provides a base amount of $7.3 million each to China’s top research groups. The next largest is the 863, which awards between $146,000 and $1.46 million. These grants are substantial by Western standards, and gargantuan in comparison with the annual base salaries of most practicing physicians in China (about $3,600 a year). Researchers at key lab facilities have reason to take their work very seriously. The realization that other labs in the future will study the work done by key lab researchers is a strong impetus for performing thorough, high-quality academic research and living up to the title of a leading research lab.

Furthermore, competition for State grant money is intense, and researchers need to publish frequently in national and international journals to increase their likelihood of funding.

In Shanghai and Beijing, medical research methods and clinical practice are as cutting-edge and up-to-date as in respected medical establishments elsewhere. The epitome of research is that of the “State Laboratories” (国家实验室), which are fully-funded by the State. Many are affiliated with China’s top two universities, Peking University (北大) and Qinghua University (清华). The government assigns this elite group of research facilities the most important national research projects and strips away the annual requirement to renew their status. State Labs provide their researchers a “golden rice bowl” (金饭碗)—a Chinese metaphor for ironclad job security. Under these optimal conditions, physician scientists have the economic and intellectual capital along with the
steadfast support of the state to promote and develop medical science in accordance with Hu Jintao’s brand of socialism with Chinese characteristics. Beijing’s desire to invest a substantial amount in cutting-edge medicine is no mere knee-jerk response to widespread public dissatisfaction with the government-regulated health care experience in China. Rather, it is a calculated effort to construct a strong foundation in basic scientific research essential for China to become a successful economic competitor in future generations.

Research groups (科研小组), the basic functional units of medical research labs in China, include private investigators (课题组负责人), clinical researchers, researchers in the basic sciences, and technicians. Private investigators are research group leaders who adopt a managerial role during the research process. They are most frequently professors, but technicians of chief and vice chief ranking are also eligible to run their own research groups. Clinical researchers are trained in medicine and usually hold master’s or Ph.D. degrees. The title also includes current graduate students of medicine, who join research groups to fulfill the second and third-year research requirements of their degrees. Researchers in the basic sciences are usually natural science (理化学) majors who are either on an academic career track towards a professorship or technicians who have ascended to the position of managing technician (主管技师). Many of the latter pursue degrees beyond the undergraduate level. Finally, basic technicians are mostly college graduates who subsequently earned their Inspector Certificate (检验师资格证). The main difference between researchers and technicians, as one researcher at Haiyin explained to me, is that researchers “should know why things are the way they are, and can have personal ideas on how to make them better,” whereas technicians “just follow the rules and go through every standard procedure.” Technicians often feel underappreciated as
the workhorses of research groups in China. This attitude has a significant impact on their decision to stay on the career track to become a PI, or leave the research field to find work at a private company.

The Haiyin State Key Laboratory is currently the only key lab whose research is focused primarily on respiratory disease. The new facility—which was established under a 973 grant—has all the modern equipment that a researcher in the basic sciences could ask for. On the 14th floor, ten research groups—each composed of three to four technicians, a couple of researchers and one PI—share separate lanes on a central research platform (公共实验平台), while others work in adjacent offices segregated by department (see “Appendix,” p.113). The 15th floor has no platform, but in its place has a large, sterile containment area for carrying out animal research. Allergy, sleep, and respiratory mechanics labs are located on the 16th floor. Common to each floor are the hallway walls, adorned with large, colorful research abstracts and concise records of the key lab’s researchers’ accomplishments. From these banners I was able to glean background information and talking points about research group heads who were not present during my stay. Although working life in the Key Lab was significantly less stimulating than that of the Respiratory Institute’s clinical departments, I had opportunities to speak at length with a number of Key Lab researchers and technicians.54

On the 16th floor of the Haiyin State Key Laboratory, I met Dr. Fa, a balding twenty-something in the Respiratory Pathology and Sleep Medicine research group (呼吸生理与睡眠医学课题组). Unlike the technicians, the young researcher

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54 I only introduce two researchers here—both male physicians—as my conversations with them were particularly relevant to answering my questions about academic medicine in China. I spoke at length with a number of female graduate students and technicians on the floor, but in general, these conversations were less focused.
had a master’s degree in internal medicine from the First Clinical School of Guangzhou Medical College and an impressive command of English. He attributed his slight British accent to a six-week research trip to London with the head of his research group, Professor Luo. When I met him, Dr. Fa was working part-time as a technician and part-time in the Respiratory Mechanics Lab (呼吸力学实验室) as a researcher. He greatly preferred the latter. “Here in the lab, I can see my advantage. I can directly see my value. My position cannot be replaced by others,” he told me. At the time, he was running clinical trials with an oral catheter invented by Professor Luo as a Ph.D. student at Kings College, London. Dr. Fa’s unique background and interest in practicing his English with me made him an important contact during my stay in Haiyin.

At the recommendation of Dr. Chen, upon my arrival at Haiyin I looked for Dr. Yang, who works in the Virology Lab (病毒学实验室) on the 14th floor. Dr. Yang began working at the Key Lab in 2007 after getting his master’s degree in integrated Chinese-Western preventative medicine (中西医结合防止研究) at the Guangzhou College of Chinese Medicine (广州中医药大学) and spending a couple of years doing virology research in Japan. He is currently an assistant research fellow (助理研究员) in the Respiratory Institute’s Pathogenic Microorganism research group (病原微生物课题组), which is led by private investigator and ranking chief Dr. Mo. Dr. Mo spent most of his time on the 15th floor administrative office during my stay at Haiyin, so Dr. Yang (at the request of Dr. Chen) introduced the group’s research to me.

55 The device, which is inserted through the nose, consists of a slim 15” plastic tube with electrodes that measure the electrical activity of diaphragm muscles and two balloons on each end that measure esophageal and mouth cavity pressure.
Deconstructing Traditional Chinese Medicine (TCM)

Traditional Chinese medicine has been the mainstay of the health care experience in China for thousands of years. Dr. Zhong, the Respiratory Institute chief and founder of the Haiyin Key Lab, explained to me. According to Dr. Zhong, two camps of TCM practitioners exist in China today. Senior doctors of traditional Chinese medicine (老中医)—who were trained through apprenticeships—comprise the camp that regards TCM as empirical medicine. The other camp consists of TCM practitioners who are trying to use scientific means to prove how TCM works. Four months before my interview with him, Dr. Zhong traveled to Maryland to speak at a conference organized by the National Institutes of Health. “They asked me to give a presentation about the management of influenza using TCM. I looked through all the literature from the eighties up until 2007, and couldn’t find any data about it. Needless to say, it was very difficult to prepare the presentation,” he chuckled.

There isn’t a consensus among the clinicians of the Respiratory Institute regarding the role of TCM in medical practice. The research-oriented Dr. Fa expressed frustration at the lack of experimental evidence for TCM, making its clinical application questionable in his mind. “Why are there Five Phases, and not Six or Seven?” he asked me rhetorically. “Doctors of internal medicine always need to know why. This we will never compromise.” Yet in clinical

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57 Chinese science scholar Nathan Sivin explains, “There were categories of six and seven early on, but once five became more popular, it decisively replaced the others in special concepts, e.g. in the six books of Chinese Classics (六经).” It is unclear whether or not this answer would satisfy Dr. Fa, but I am convinced it would do little to change his orientation towards TCM.

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Ryan A. Leonard, College ’10
practice in the internal medicine department of the Respiratory Institute, compromise is second nature. Physicians I spoke with in the Second Ward felt differently, explaining that in most situations, their policy is to emphasize Western biomedicine and deemphasize TCM (重西轻中). They look to TCM, however, only after Western biomedicine fails to provide answers. When I spoke with Drs. Sang and Cheng from the Outpatient Clinic about this, both agreed that while TCM has its merits in clinical practice, physicians should not try to use Western biomedicine to judge or dissect it. The two likened such an attempt to using science to prove philosophy. Yet that is exactly what Dr. Yang and his small group in the virology department were doing with a well-known Chinese drug called Banlangen (板蓝根).58

On my first day at Haiyin, Dr. Yang presented a PowerPoint lecture to me introducing the Virology Lab’s research on Banlangen and other popular Chinese drugs that treat respiratory disorders. The primary objective of such projects is to determine the efficacy of TCM in antiviral defense and its biochemical mechanism. He explained that there are both anecdotal and practical reasons for investigating Chinese drugs. In 1917, when the Spanish Flu ravaged through much of the Western world, China was left relatively unscathed. Dr. Yang attributes this to the ability of Chinese doctors to examine TCM records and find an effective means of prevention and treatment against the epidemic. Similarly, during the malaria (疟疾) outbreaks of the Vietnam War, Chinese physician scientists discovered an effective treatment alternative to the Western vaccine (which could only prevent, and not treat) in the herb Qinghao (青蒿). They

58 When I came down with the sniffles during my research, I tried Banlangen for the first time upon the urging of my host. The medicine I took, which is derived from the roots of woad, was in the form of a granulated, reddish powder. I mixed the powder in a cup of tea before ingesting.
subsequently isolated the active organic compound, artemisinin (青蒿素, \(C_{15}H_{22}O_5\)), and determined its biochemical mechanism.

The practical reasons for carrying out such research are manifold, but they each reveal shades of nationalism. In recent years, China has been an epicenter of major infectious diseases, including AIDS (艾滋病), SARS (非典), avian flu (禽流感), seasonal flu (季节性流感), and (after I left Guangzhou) swine flu (猪流感). Battling diseases with which they are frequently and negatively associated is important to Chinese physician scientists. Furthermore, deconstructing the therapeutic properties of Chinese drugs is “something that really concerns Chinese people; this kind of research is not done in Western nations due to the dismissal of TCM as alternative medicine,” Dr. Yang explained. Finally, Japan and Korea are also doing similar research, so national pride is at stake in a very real way. Upon mentioning this, Dr. Yang expressed noticeable disgust at the Japanese transliteration of “Chinese drugs” (中药物). Even though the members of the Respiratory Institute’s Pathogenic Microorganism research group are deconstructing TCM, they are not destroying it; rather, they are reclaiming it for China.

Dr. Zhong, the founder and current director of the Key Lab, believes that science has the potential to deconstruct the effective parts of TCM. “We are trying very hard to change TCM into evidence-based medicine.” If successful, the Banlangen project could transform attitudes of the Chinese and the international community (represented by the NIH, who is helping to fund the project) towards the sustainability of TCM in an environment that is increasingly less tolerant of it and create momentum for similar research initiatives on other Chinese drugs. Dr.

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Zhong’s 2008 study on chronic obstructive respiratory disease published in *The Lancet* is evidence that Chinese medical researchers can use basic science to compete with the best of the West.\(^{60}\) Dr. Yang and the rest of the Virology Lab hope to find success comparable to that of the Respiratory Institute’s leader and the unsung physician scientists of the seventies who conquered malaria.

### Barriers to Success

Stocked with scientific equipment at or near international standards of quality, the Key Lab provides medical researchers with the resources they need. Dr. Yang still faces many obstacles along the way, however. A brief glance at his bookshelf—filled with academic publications and science textbooks written in Chinese, English, and Japanese—and one can appreciate the difficulty in producing original research of international caliber. “There’s a clear linguistic barrier,” Dr. Yang told me. “Western physicians and scientists overlook most Chinese research.” As a result, Dr. Zhong encourages medical researchers at the Respiratory Institute to learn English, the lingua franca of international academic medicine.\(^{61}\)

One bad apple not only spoils the barrel; it can also tell a lot about the orchard from which it came. Academic research in China is rife with plagiarism, and Dr. Fa estimates that 90% of articles published lack quality assessment. He also told me that the preference of Key Lab researchers to study and collaborate with

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\(^{60}\) While the publication of this study has greatly broadened Dr. Zhong’s reputation as a leader of clinical research in China, it said little about the ability of Chinese scientists to participate in cutting-edge biomedical research. Cong Cao of the National University of Singapore argues that SARS represented a failed chance for medical researchers like Dr. Zhong to be “the first to identify the pathogen, sequence its genome, and describe how it sickens its victims” and shine on the international stage. (Cao, 2004, p. 262)

\(^{61}\) Dr. Fa joked that to join the Respiratory Institute, physician scientists only need “to speak good English and play basketball,” Dr. Zhong’s favorite sport.
foreign scientists despite communication difficulties further reflects how rampant academic dishonesty in China has become. Key Lab researchers don’t trust data that comes out of other labs in China because they can’t vouch for their authenticity. The international community is also catching on to the ongoing trend of scientific fraud. In January 2010 The Lancet published a scathing editorial chastising the Chinese government for doing little to prevent the publication of a study with fallacious data on crystalline structures by two research groups from Jinggangshan University in Jian, China. The problem is that the financial incentives that Chinese researchers face are often enough to influence their scientific integrity and the means by which they pursue the national goal of scientific development.

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62 In the article’s closing paragraph, The Lancet writes, “China’s Government needs to take this episode as a cue to reinvigorate standards for teaching research ethics and for the conduct of research itself, as well as establishing robust and transparent procedures for handling allegations of scientific misconduct.”
Medical Morality and Jurisprudence

After he first joined the Respiratory Institute, Dr. Fa—the respiratory mechanics researcher I met at Haiyin—had attended a training session whose keynote speaker was a former resident turned lawyer. The lawyer highlighted three things that every doctor should have: 1) refined technique in treating patients (医术精湛), 2) a strong sense of medical morality (医德高尚), and 3) an understanding of legal medical practice (合法行医). In reality, the lawyer explained, three types of doctors exist: those in the corrupt mainstream (who accept bribes for their services), the disillusioned (who leave the medical profession to pursue other careers in public service), and the moral (who face community persecution for not accepting bribes). In order to rid the profession of graft and incompetence—and ultimately make quality medical care safer and more affordable for Chinese people—Dr. Fa believes “moral consideration is not enough; more training in medical law is necessary.”

Western and Chinese conceptions of law and morality are so fundamentally different that some orientation is necessary here. The focus of this section is to understand how these legal and moral definitions shape (or fail to shape) the physician experience in China, both in theory and practice.

Law in America and China

In the United States, the law defines the role of government, maintains public order, and protects the rights of individuals. A couple of hallmarks of the American legal system are the division of jurisdiction between state and federal
courts and trial by a jury composed of ordinary citizens. New laws can be introduced at the state and federal levels in two ways: through the passage of congressional legislation (statutory law) or through court decisions made by a judge (common law). In *Law’s Empire*, the legal scholar Ronald Dworkin defines the law as having “an interpretive, self-reflective attitude addressed to politics in the broadest sense…that makes each citizen responsible for imagining what his society’s public commitments to principle are, and what these commitments require in new circumstances.” (Dworkin, 1986, p. 413) Whether or not we understand how it works or agree with all of its parts, we as American citizens have the expectation that after a law is established, it is dutifully enforced. We treasure the blind justice of the law and the sympathetic legal system that surrounds it.

The motto of the University of Pennsylvania is “*Leges sine moribus venae*” — laws without morals are useless. In the space where law meets medicine, this statement is particularly apt. A few broad points emerge from our nation’s unique and textured history of medical jurisprudence, throughout which Americans from all walks of life have contributed their own moral perspectives. As a result of their specialized knowledge and years of medical training, physicians share a fiduciary relationship with their patients. This means that they have a special responsibility to put the interests of patients above their own, and are subsequently held, in the eyes of the law, to the medical community’s standards of ethical behavior. For example, laws regarding informed consent require physicians to disclose all appropriate treatment alternatives for their patients as determined by professional medical custom. The corporate practice of medicine doctrine prohibits for-profit corporations and other groups composed of non-physicians from employing physicians directly, averting a potential
conflict between the employers’ financial interests and the fiduciary responsibilities of physicians to their patients.\textsuperscript{63} It also makes it illegal for hospitals to provide excessive benefits to entice physicians to move their practices. Behind these laws is a principle that many Americans hold dear; physicians shouldn’t allow financial incentives to influence the way they practice medicine. Taken as a whole, medical jurisprudence both reflects and helps orient the physician’s moral role in American society.\textsuperscript{64}

Rule by law (以法治国) and legal protection of individual rights have until recently been foreign concepts to the people of China, despite endless legislation over the centuries. Traditionally, Chinese people have put little faith in the ability of the government to settle civilian disputes, preferring to solve problems using personal relations (人情) and connections (关系). For the greater part of her history, China has been a nation ruled by men (人治国家) despite a ubiquity of written law; the Chinese word for rights (权利) didn’t even exist prior to the mid-19\textsuperscript{th} century. Today’s China (the PRC) has a clear legal framework rooted in socialist law. The written word of the Constitution of the People’s Republic of China (《中华人民共和国宪法》) entitles its citizens to rights that would surprise many. Unlike in the common law system with which we are familiar, however, the Party leadership unilaterally determines how the law is interpreted. Civil courts are a tool of the state rather than a counterbalance to state power. Enforcement is also a major issue; the State’s complex bureaucracy and local government corruption make it difficult for the central government to ensure that its functionaries will carry out its legislative measures, especially those that require moral supervision. In the workplace, the general trend is away from Party control in favor of increased professional autonomy and self-determination.

\textsuperscript{63} Health maintenance organizations (better known as HMOs) are exceptions to this rule.
\textsuperscript{64} For further discussion of medicine as a moral enterprise, refer to Pellegrino (1987).
(see “Orientations,” p. 16). The Big Brother tactics once the mainstays of management in Chinese work units are being phased out in medicine and other developing professions.

The most relevant piece of medical jurisprudence that affects the lives of Chinese physicians—the People’s Republic of China Licensed Physician Law (《中华人民共和国执业医师法》)—reflects the problems I have summarized. Passed in June 1998 during the ninth plenary session of the National People’s Congress Standing Committee (全国人民代表大会常务委员会) and effective since May 1999, it is also the first major law in the PRC that defines the role of physicians in society, albeit ambiguously at times. Section 1.3 states that physicians ought to develop a code of professional ethics, that they deserve respect from all society, and that they are protected under the law. Section 1.7 allows physicians to form their own professional organizations (such authorization is essential). Section 3.27 says that physicians must not exploit their professional status to obtain extra income or gifts from their patients. Section 4.31 delegates evaluation of physicians’ behavior and clinical competence to the administrative health departments of local governments at and above the township level. Section 5.42 states that in the event of fraudulent behavior on their part, the administrative staff of such departments may be criminally prosecuted. Section 5 also defines what constitutes criminal behavior in physician practice and holds those who hinder the proper implementation of the Licensed Physicians Law accountable for their actions.65 As a whole, the law

65 Physicians may receive criminal charges for encountering a serious mishap as a direct result of delaying treatment for a patient in need of emergency care, violating local health regulations, or disclosing patient information; prescribing medicine or signing legal documents (including prescriptions) for oneself or one’s family; performing experimental clinical care on patients without consent; ignoring the call of duty to assist in the event of a serious natural disaster; misreporting malpractice cases etc. In Chinese courts, lessening the degree of punishment is often dependent on the defendant’s connections or his ability to bribe the presiding judge. (Licensed Physician Law)
grants some specific rights to physicians and defers most legal jurisdiction over physician issues to local governments. The sincerity of its words appears legitimate. Both physicians and laymen complain, however, that the law is full of empty promises and commitments and casts a blind eye on the health care industry’s best-known failings.

**Physicians at Fault**

Near the beginning of my trip, a local friend gave me a copy of *China’s Pain: Unveiling the Darkest Secrets of the Healthcare Industry* (《中国之痛——医疗行业内幕大揭秘》), a book published in 2007 and marketed as “a must-read for every Chinese.” Think of it as the Chinese version of Michael Moore’s *Sicko*. The book is a scathing diatribe against a health care system that makes seeing a doctor a difficult and expensive experience, and is rife with sensational patient anecdotes that the author Zeng Deqiang (曾德强) heard as a People’s Representative in the Municipal Government of Ankang in Shaanxi Province. The crux of the book is that China’s health care system is in desperate need of reform. In the process of proving this point, Zeng portrays the working life of Chinese physicians in striking contrast to what I saw at the Respiratory Institute. Dr. Zhong encouraged me to read this book and similar sources if I really wanted to know what medical practice was like beyond the confines of the First Hospital.

One of the defining elements of medical practice in China is gray income (灰色收入), bribes that patients and pharmaceutical companies give physicians. The gray income proportion of a physician’s total salary can exceed basic monthly income by many times. It is highly dependent on a physician’s location of practice, work unit, specialty, professional ranking, and administrative
position. I didn’t observe any illicit behavior firsthand during my stay in 
Guangzhou, nor did I feel it was an appropriate topic to bring up as a guest 
(trying to keep a low profile). Nevertheless, any discussion of medical practice in 
the post-economic reforms era must address this issue, as it is a hallmark of the 
working life of Chinese physicians.

Red envelopes (红包) are familiar symbols of Chinese culture to the 
Western reader. Every year around the Lunar New Year, parents and relatives 
fill these thin sealed packets with money for their children (压岁钱). What began 
as a form of insurance to ward off evil spirits has become a beloved tradition for 
children throughout China and its diaspora. Furthermore, giving New Year’s 
money to family members, friends and their children is an important networking 
tool and a key to maintaining personal relations. In the mainland, however, the 
red envelope carries a deeper, more ominous significance in the context of 
medical practice: it’s a bribe in exchange for better medical care.\footnote{The practice of giving red envelopes as a means to an end is also common in dealing with government officials in China. I asked a Taiwanese friend if patients also give red envelopes to physicians to acquire better medical care. She said that the practice isn’t unheard of, but very rare given that Taiwan has universal insurance coverage for its citizens. She had heard of a few cases of doctors accepting money and gifts on the side in exchange for moving patients up on organ donors’ lists. One of my friends from Hong Kong told me that until the arrival of the Independent Commission Against Corruption in 1974 and the subsequent establishment of mandatory board-certification, inpatients had to give red envelopes to ward servants (阿妈) to receive water, food and blankets.}

It is also 
customary to facilitate other kinds of expert attention.

Giving a red envelope to a doctor lets him know that his patient cares 
about her own health, respects him as a professional, and is grateful for his 
services; consequently, she deserves to be treated better than the average patient. 
In the past, it was socially acceptable for patients to give small, inconsequential 
gifts as a simple expression of appreciation for their physicians. In today’s China, 
gifts are no longer an appropriate substitute for cash reimbursements. As Zeng
writes, “Of course, it’s okay to go without the red envelopes. It’s just going to hurt a little more, take a little longer, take a few more needles, and require a few more dirty looks from a very displeased physician.” (Zeng, 2007, 103) Presenting red envelopes has also profoundly impacted the psychology behind the patient-physician relationship in China. The practice has become so commonplace that patients—both out of fear of being in the minority and out of habit—feel that they need to give extra money to physicians to receive proper care. The bandwagon mentality is similar for physicians. As mentioned at the beginning of the chapter, the physicians who find the practice incorrigible are subject to discrimination by their peers. Thus, an unspoken rule of health care delivery in China has developed into a vicious cycle.67

Pharmaceutical companies typically send representatives to hospitals to advertise the benefits of new drugs to physicians, usually targeting those of high rank. Sometimes they will spend a whole day following doctors around the hospital, waiting patiently for spare moments.68 As mentioned in “Clinical Practice,” pharmaceutical companies also organize presentations for doctors during the lunch hour. There is nothing illegal about these activities; they are also the norm in the U.S. It’s what happens in many Chinese hospitals behind closed doors that is morally questionable.

The money that a pharmaceutical company puts into a physician’s pocket to influence his prescribing behavior is called a drug sales commission (药品回

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67 Some specialties (many of them surgical) are more likely to rake in big money from red envelope gifts than others. Doctors in less profitable specialties, such as TCM, rehabilitative medicine (康复医疗), and pathology (病理科), generally pose less of a direct threat to patient health.

68 During my stay at the Respiratory Institute, I encountered both pharmaceutical representatives in the Outpatient Clinic and the Second Ward, as well as medical device company representatives (医材公司代表) while stationed at the Lung Function Lab. Upon meeting them, both representatives mistook me for a Respiratory Institute physician and began telling me about their products. When the doctors showed up, they either ignored or resolutely rejected their offers, but were nonetheless cordial.
扣). This is usually a direct percentage cut based on the quantity of prescriptions his patients fill at the hospital’s pharmacy (which has an established relationship with pharmaceutical companies).\textsuperscript{69} All three perpetrators—the pharmaceutical company, the hospital, and the individual physician—benefit economically from this arrangement; Dr. Fa calls this a “true lie that everyone knows.” According to Zeng, even more sinister is that many of the so-called “new drugs,” which are advertised under new names and marked up several times in price, are actually slight variations of generics, and sometimes don’t even work as well.\textsuperscript{70} The “one drug, many names” (“一药多名”) situation creates a problem for both laymen and physicians who are looking out for the patient’s best interests.

In China, patients don’t have the political clout to change how physicians do their job. They can, however, seek justice just as we do when physicians don’t do their job correctly. Ordinary citizens are becoming more aware of their rights and their ability to sue physicians under the conditions of the Medical Malpractice Management Ordinance (《医疗事故处理条例》), to which Section 3.27 of the Licensed Physician Law relays authority. Passed in February 2002 by the Standing Committee of the State Council (国务院) and effective since September 2002, the law specifies how much patients can recover for different incident categories, and what the punitive consequences are for their physicians. According to a November 2009 article in the China Daily, victims and their families have filed over 10,000 cases of medical malpractice (医疗事故) every year

\textsuperscript{69} Sales commissions from medical device companies (医材回扣) are similar to those from drug companies, but provide more bang for their buck.

\textsuperscript{70} We face a similar problem in the U.S. when the patents of first-in-class drugs expire and generics enter the market. This is a bigger problem in China due to a wider asymmetry of information between doctors and their patients (many of whom are illiterate and cannot access information about drugs).
This is a very small number compared to China’s patient population of 1.3 billion and the number of pending malpractice suits in the U.S. at any given time, and it is unclear how many patients argue their cases successfully.

Sometimes Chinese victims of malpractice (or perceived malpractice) take matters into their own hands, adopting a more passive-aggressive measure. Assembling in groups of ten to as large as 100, disgruntled families and friends of patients with bad outcomes (usually death) camp out on hospital grounds during the day as a form of protest. Sometimes they dress in white (a color Chinese people associate with death) and play dead outside of the hospital’s chief administrator’s office (院长办公室). The medical alarmist phenomenon (医闹现象) is a public response to rectify perceived inequities in the patient-physician and patient hospital relationships as well as a means of personal retribution. On the other hand, it is also a practical way to solicit funds from other patients in the hospital. Their planning is deliberate, and their actions methodical; often, in a case of medical alarmists, there is little that hospital security can do. Section 5.41 of the Licensed Physician Law states that if such demonstrators humiliate, slander, threaten, or beat up physicians—or interfere with their ability to treat other patients in general—and are prosecuted, they face the criminal penalties of the Administrative Penalties for Public Security Act (《治安管理处罚法》). Most medical alarmists know the letter of the law and

71 The article, “Baby dies while doctor plays games online,” tells a sensational, tragic story that Chinese people are all too accustomed to hearing. Anecdotes about physician negligence and general corruption and information about how to cope with malpractice and recover as much as possible by legal means now rapidly circulate through the Chinese blogosphere. Unfortunately for physicians, whose collective status is already soiled by such horror stories, the Malpractice Management Ordinance incentivizes patients to cry wolf at any suspicion of medical error (医疗过错).

72 This number is over 120,000 according to one medical malpractice insurer, The Doctor’s Company.

73 In Chinese culture, people place tremendous value on saving face (保护面子). The same can be said for any institution. Dealing with medical alarmists who disrupt public order (破坏秩序) is not only troublesome for physicians and hospital administrators, but also humiliating.
proceed only to the brink. Often, it is not the individual physician who is most damaged by medical alarmist demonstrations, but rather the hospital in which he is stationed.74

The Advanced Study Physician and the Law: A Collision Course

My first exposure to Chinese medical jurisprudence occurred while I was in the Second Ward. One afternoon, one of the hospital’s administrative officials came in to deliver two PowerPoint presentations following a recent lawsuit against the First Hospital that resulted in the death of a patient at the hands of an advanced study physician. It wasn’t clear where or when the incident occurred, and I didn’t dare to ask. The first presentation, “Proper Understanding and Implementation of the Prescription Management Act (《处方管理办法》正确理解与实施),” introduced me to a third important piece of medical jurisprudence in China today.75 The second presentation was a review of the aforementioned Licensed Physician Law. At the end of the presentations, the administrator reminded the audience that the content presented would be tested at a later date.

I asked one advanced study physician, Dr. Liu, what he thought about the presentation, and he responded with ambivalence. “This is just an administrative issue—it’s not that important. The so-called test is really easy, and it’s more of a symbol than anything else.” He went further to say that in general, he didn’t think advanced study physicians should be fully accountable for their actions, as they are still technically students. At first, I was taken aback by Dr.

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74 In July 2006, the spokesperson for the Ministry of Health responded to questions from the media about medical alarmists, condemning their behavior as illegal.

75 The Prescription Management Act was recently passed by the Ministry of Health in November 2006 and became effective in May 2007. Regarding advanced study physicians, Section 3.13 states, “After proving competence in their specialty to the medical institution of their advanced study, advanced study physicians may be conferred the corresponding right to prescribe medicine.”
Liu’s reaction. Based on my understanding, this was clearly a case of malpractice that got out of the hand, and it made sense that the person at fault should be accountable.

After returning to the United States, I found further evidence for Dr. Liu’s reaction in *The Guangzhou Daily* (《广州日报》) that sheds further light on the role of the advanced study physician in Chinese hospitals. The article discusses a particularly unprincipled advanced study physician at one of the affiliated tertiary hospitals of nearby Zhongshan University. The hospital revoked the physician’s license to prescribe drugs (处方权) for six months after they discovered he was taking in nearly $10,000 a month in gray income by overprescribing drugs (开大处方). The author’s analysis of advanced study physicians is as follows. Once accepted for study at an outside hospital, advanced study physicians are no longer under the direct jurisdiction of their local work unit. They receive no financial subsidies from their host institution, and since they only stay there for a year on average, they take advantage of their newfound freedom by slacking off. Furthermore, most of the advanced study physicians in Guangdong are provincial outsiders unaccustomed to the province’s higher standard of living. These elements make advanced study physicians particularly susceptible to the temptations of red envelopes and drug sales commissions. According to the article, pharmaceutical representatives recognize this, and will sometimes check the records of hospitals’ pharmacies to actively seek out advanced study physicians who are licensed to prescribe medicine.

Perhaps Dr. Liu was merely a very jaded physician of advanced study, as I’ve portrayed him to be. While at the Second Ward, I asked four of the eight advanced study physicians—the four that I’ve named in this thesis—the reason
they entered the medical profession. All four of them ended up in the field by accident, and all of them expressed some degree of regret. This gave some credence to my theory that there may be something about the institution of the advanced study physician—namely, the incentive to gain professional prestige while slacking off (or in some cases, behaving badly) without fear of long-term consequences—that runs counter to the tenets of what the Chinese call medical morality (医疗道德).

Medical Morality Explained

In “Medical Morality is Not Bioethics—Medical Ethics in China and the United States” Fox and Swazey (1984) offer a compelling analysis of the concept and its uniqueness to China after their six-week stay in a critical care unit of a hospital in the northern city of Tianjin in 1981. Medical morality is a fluid set of guiding principles based on how Chinese individuals perceive themselves in relation to others. In the context of medical practice, its primary concerns are threefold: to repair “the moral and intellectual damage as well as the economic and political damage of the Cultural Revolution (1966-1976)…to scale the heights of modern medicine and thereby achieve the golden-dream benefits that come from applying advanced science and technology to problems of health, illness, and the care of patients…and to preserve] the dynamic and creative continuation of the Great Liberation, the revolution that established the People’s Republic of China in 1949.” (Fox & Swazey, 1984, p. 340) Physicians and other health workers carry out these goals by drawing from the most prominent belief systems of traditional and modern China, namely neo-Confucianism and Maoism. The result is the formation of a work unit in constant negotiation.
between its distinctly paternalistic structure—in which physicians are medical leaders and Party cadres are administrative leaders—and its egalitarian tendency to equate patients with brothers and sisters (subverting traditional Confucian roles which emphasize loyalty to one’s own family). These guiding principles are abbreviated into catch phrases and slogans which adorn the walls of hospitals across the country, often set alongside State hospital guidelines and portraits of past Party leaders. The authors argue that the characteristic features of medical morality they observed in a Tianjin hospital “all have their counterparts and origins in Chinese tradition.” (Fox & Swazey, 1984, p. 346) The Chinese call this negotiation process “walking on two legs” (两条腿走路), reflecting a certain flexibility and pragmatism in the interpretation of moral principles. This harmony of opposites, or “dynamic complementarity,” that characterizes the neo-traditional moral ground of Chinese is represented by the familiar yin-yang symbol.

During my stay at the Respiratory Institute, I discovered that medical morality as portrayed by Fox and Swazey was all around me—with some appropriate modifications after 25 years. The Party rhetoric is toned down, but the emphasis on delivering high-quality care to patients remains. “A doctor is a person, too. He understands the pain of illness. That’s why we should treat our patients as our friends,” Dr. Cheng told me one day at the Outpatient Clinic. The persistence of medical morality is a testament to the resilience of Chinese belief systems, which have survived centuries of political change. Yet when the architects of the Reform and Open Movement ushered in a new era of economic

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76 Such pragmatism is reflected in the pluralism of China’s religious traditions. Although the PRC is an atheist state in name, the government has become increasingly open to the religious practices of its citizens, taking exception to those that threaten the solidarity of the State, e.g. of the Falun Gong (法轮功). Chen Zhu (陈竺), China’s current Minister of Health, also uses the phrase “walking on two legs” to describe the Ministry’s strategy to “use biomedicine to boost accessibility and equal provision of health care…[to pursue] excellence in cutting-edge technologies…along with a serve-all approach.” (Chen, 2008, p.1443)
prosperity for China, they established few safeguards against the practice of market-oriented medicine. Opportunists have made medical morality look unfashionable, profiting at the expense of honest physicians.

A paper on current changes from the April 2010 issue of *The Lancet* concludes that “unless medical professional ethics and norms are re-established in China, physicians will continue to find ways to put their own interest first, even at the expense of quality care.” A comment from the same issue by Arthur Kleinman introduces his forthcoming book *Deep China: Remaking the Moral Person in China Today*. Regarding medical morality, he writes, “While China possesses a marvelously rich indigenous tradition of Confucian ethics, medical ethics in contemporary Chinese hospitals, medical schools, and biotechnology research institutes is still largely an import of Euro-American procedures and protocols, with a key influence from the U.S. National Institutes of Health.” (Kleinman, 2010, 1075) This is an excessive generalization, because the medical morality that Fox described in 1984 was never wholly replaced by Western tenets of professional ethics (职业道德). It is true that increasing financial incentives to practice a less ethical form of medicine lesson appeal among Chinese physicians, as evidenced by *The Lancet* studies and my earlier conversation with the researcher Dr. Fa. But over the past twenty years, China’s medical leaders—many trained abroad—have been the main players in revising and adapting the scope of medical morality to better suit the current economic climate. The “Euro-American procedures and protocols” that shape the working lives of physicians in the West have an appreciable effect on professional ethics in China, but the

77 The study examines data from three pilot programs adopted by the Ministry of Health in 2005 that attempted to incentivize delivery of quality care in community health centers and remove incentives to prescribe more drugs by giving salaries to primary care doctors. On average, the researchers found that patients spent less money per visit and immunization rates and public satisfaction increased. (Yip & others, 2010)
successful construction of a new medical morality grows out of local medical custom; the final product must be palatable to Chinese physicians. An “import” of Western professional ethics will not suffice.

It is also clear that the revitalization of medical morality in China cannot rely solely on mandates from the central government. Widespread corruption, graft, and immorality tarnish the credibility of government officials at every level of CCP bureaucracy, and neither the law nor the Party is still capable of inspiring doctors to adhere to a new value system. That desire for change must come from within the medical profession, and it must have the public’s support. However, the law still provides safeguards against the worst excesses of bad behavior. Through the judicious appropriation of funds and resources for medical reform, Party lawmakers in the National People’s Congress are actively altering some of the profit motives that physicians face. This is indirectly catalyzing the creation of a new medical morality.\textsuperscript{78}

\textbf{Fighting Corruption}

The outbreak of SARS in 2003 turned all the world’s eyes towards China. The revelation that the government had tried to hide its extent, despite the earlier failure to ignore and conceal the AIDS epidemic, resulted in a great scandal. It ushered in a new era of increased transparency in the field of public health, and catalyzed public desire for medical reform. For a short period, it replaced the usual bravado of an all-powerful, all-knowing central government with

\textsuperscript{78} Fox and Swazey’s analysis of medical morality in China preceded by twenty years the current administration’s policies regarding scientific development. A related area of interest is medical research ethics, which the Ministry of Health bases on the principles of autonomy, beneficence, and justice. (Wang & Henderson, 1867, 2008)
uncharacteristic vulnerability and panic, and provided a means for medical experts of character to enter the public eye and gain tangible political clout to share their expertise. Dr. Zhong strongly believes that the fight against SARS also had for Chinese people important social and moral implications, which he explores in his book, *The New Trend of Humanism: On the Construction of the Humanistic Spirit in the Fight Against SARS* (《人文新走向——广东抗非实践中人文精神的构建》) (2007). China paid a great price in lives to conquer SARS, but the government and the public also gained from the process a renewed compulsion to put people first. Dr. Zhong purposefully draws upon the language of President Hu’s *Scientific Development Concept* of 2005 to illustrate his point. “After SARS, the government realized the need for constructing a harmonious society and the need to consult experts,” he told me during our interview. Since the adoption of the *Scientific Development Concept*, the collective Chinese response to national tragedies ranging from the 2008 Sichuan earthquake to recent mining accidents in Shanxi reflects some of the government’s success in cultivating public moral concern.

As mentioned in “First Encounters” (p. 22), Dr. Zhong’s role in leading the fight against SARS propelled him into the national spotlight and gave him a new position as the head of the Chinese Medical Association. Established in 1915 and preceding the Licensed Physician Law by over eighty years, the CMA is the oldest non-governmental medical organization in China. The CMA’s guidelines for conducting medical research and combating emergent infectious disease directly affect the policy decisions of the Ministry of Health. Since 1949, however, it has acted rather like a second Ministry of Health, overrun by Party members and plagued by Party bureaucracy. When Dr. Zhong became head of the CMA,

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79 In China all nongovernmental organizations must be affiliated with and informally supervised by government agencies.
he immediately instituted reforms that promoted democracy and transparency within the organization. He removed all the other incumbent leaders and declared that all the chief editors of the CMA’s 108 journals must be elected by CMA members. Established in 2002, the Chinese Medical Doctor Association (中国医师协会) is China’s largest non-profit medical professional organization whose influence and popularity as a defender of physician rights and welfare is growing. Together, the two organizations are prominent lobbyists for medical reform and the revitalization of professional ethics in China. With their combined efforts and the continued implementation of medical reform by the central government, the prospect that they will establish a new tradition of medical morality—one that effectively counters market-oriented medical practice, reinforces the ethical obligations of the fiduciary relationship, and reflects the interests of both Chinese physicians and patients—looks hopeful.

The government is also cracking down on corruption in the pharmaceutical industry using the familiar method of “killing a chicken in front of a monkey” (杀鸡给猴看), or punishing an individual severely to make an example out of him and frighten others like him. Dr. Zhong recounted the story of Zheng Xiaoye (郑筱萸), former head of the State Food and Drug Administration (国家食品药品监督管理局). In 1998 Zheng, an engineer and scientist from the southern city of Hangzhou, became head of the Agency (局长), and immediately decreed that the national office of the Agency must approve all new drugs. Four years later, drug quality control improved considerably, but power in the organization had become too concentrated. Only Zheng was making decisions about which drugs to approve, and his wife and son had been taking bribes on his behalf (totaling over $1 million) from pharmaceutical

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80 Still, over 50% of the leaders of these and similar organizations are Party members.
81 Previously, only provincial governments approved drugs.
companies involved in the “one drug, many names” scheme. Nearly 10,000 new drugs were approved, the majority of them old drugs with new names. In 2005, the media reported the story of a patient who died from taking an approved drug. In December 2006, one of Zheng’s colleagues made inspectors aware of his illegal activity. In March 2007, Zheng was formally expelled from the Party, fired from his administrative position, and arrested. A few days later, representing the Health Matters Group at the People’s Political Consultative Conference, Dr. Zhong asked, “The Agency also has its own mechanism of discipline and inspection. How is it that the chief wasn’t caught sooner? How did its discipline and inspection department fulfill its duty? And why isn’t the government looking into these questions?” (Zhao 2007) In July of the following year, Zheng was executed on corruption charges. “Now,” Dr. Zhong told me, “the Agency is a much more transparent organization. Drug companies can apply for a drug and expect it to be evaluated and approved (or not approved) in a set number of days. Anyone can go to the SFDA website and view an updated list of approved drugs.” For the most part, China’s “one drug, many names” problem is solved, but there is still much anti-corruption work to be done. And capital punishment isn’t practical for every case of bad behavior.

Moral life and its legal safeguards are evolving at a dizzying rate in China. The dynamic interaction between a strengthened medical morality and well-enforced medical jurisprudence could radically reshape professional ethics for future generations of Chinese physicians. In a time when rapid scientific progress in an increasingly complex field demands qualified, reliable, and moral individuals to take up the burden of medical practice, physicians also need to be better educated in the laws that govern China’s health care system and encouraged by their institutions to abide by them.
In her article, Fox writes extensively about an old nurse named Madame She, whom the Tianjin hospital staff celebrated as a model of the principles of medical morality. In addition to her service as a practicing nurse, Madame She also helped rebuild the hospital’s nursing program after the Cultural Revolution and served as a teacher of ethics (see “Pecking Order,” p. 43). In post-economic reforms, post-SARS China—where the egalitarian ideas associated with Marxism have fallen out of favor in medical work units—such a character is no longer an apt spokesperson for this new medical morality. Instead, representatives of this new medical morality must be physicians in the public eye who pursue integrity in research and practice, speak out against corruption, look out for the welfare of patients, and use their expertise to actively develop solutions. No doctor I met in Guangzhou better reflects the ideals of this new medical morality than Dr. Zhong, a national hero with a lifetime of experience and a seemingly endless drive for real change in China.

Conclusions

Beginnings and Endings

 Appropriately, I ate my last meal in Guangzhou with Dr. Chen, the physician who, more than anyone else, made my field work at the Respiratory Institute possible. He took me out to the Monte Carlo, a Western-style lounge and a
favorite restaurant of Dr. Zhong Nanshan located on a corner of a busy intersection in the heart of Yuexiu District. Our entree choices that night characterized the kind of cultural exchange we both sought; I ordered a fusion dish of fried rice, while he had a steak (Chinese consider slabs of meat wildly exotic). The relaxed timbre of our conversation was a welcome contrast to the stilted discussions we shared over Skype and at McDonald’s earlier. Dr. Chen, who had up to that point made a strong effort to speak English with me, spoke with me in Mandarin for much of the meal. Before I left, he presented me with a signed copy of The State Key Laboratory of Respiratory Disease 2008 Annual Report (《呼吸疾病国家重点实验室 2008 年工作报告》), a valuable reference source. It was clear that we had become more than acquaintances.

I used this final opportunity to clarify gaps of knowledge I encountered in the course of my research. I asked Dr. Chen for his thoughts on national issues concerning the medical profession. He told me how difficult it is for Chinese students to commit to studying medicine: “As a high school student, how are you supposed to know what you want in the future?” Even though he himself had completed a dual M.D./Ph.D. program, he feels that it’s not so good to have two such different educational tracks. He believes medical education needs to become more standardized, more research-oriented, and less reliant on apprentice-based relationships with older students. Dr. Chen also expressed concern with how Party lawmakers are implementing medical reform, specifically how they are cutting insurance benefits from intellectuals like doctors, teachers and researchers—all considered public servants—while their own benefits remain intact. His resounding conclusion? “Life as a doctor in China is not very good, but it’s okay.”
I got to know Dr. Chen much better that evening. He shared with me his aspiration to continue along the academic track. His next step—becoming an associate professor—requires him to earn a provincial or national grant for his research, something he finds considerably more difficult than the requirements of the vice chief physician. Still, he will not give up this goal. For Dr. Chen, who has lived in the dormitories of the Medical College for ten years now, the Respiratory Institute is home. I asked him what the Respiratory Institute would be like when his mentor, who is well-past the age of retirement, finally finishes his work there.82 Dr. Chen told me, “Dr. Zhong is a talent that is seen only every few hundred years (三百年难得一见的天才). If he left the Respiratory Institute right now, there’d be real problems.” To be sure, Dr. Chen has many years ahead of him before he is offered the mantle of his mentor. Still, part of the young doctor is satisfied with living a fairly normal life. He wants time to travel and pursue hobbies like KTV (the Chinese abbreviation for karaoke).

Reflections and Applications

Dr. Chen’s ability to make such a choice reminded me that the physicians I met at the Guangzhou Institute of Respiratory Disease are not the typical case. They are among the province’s medical elite, and are certainly the city’s most sought-after doctors in their specialty. Clinicians and medical researchers at the Respiratory Institute have, to borrow words from Chinese humorist Lin Yutang 林语堂, their feet in both Eastern and Western cultures (两脚踏东西文化). Despite

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82 In the PRC, men retire at the age of 60, while women retire at 50. Experts of Dr. Zhong’s caliber are special exceptions to this hard-and-fast rule.
having no experience living outside of China—especially true of the third generation of the Respiratory Institute—the academic environment in which they work gives them access (and prepares them to contribute) to a world of boundless knowledge—the Western realm of biomedicine—one that most Chinese will never master. Their affiliation with a top-rate institute with a vast international network of academic ties makes their experience unique. Most importantly, they have Dr. Zhong, whose presence brings to their working lives a richness that physicians elsewhere—even elite ones—will never experience. Dr. Zhong’s career is a constant reminder that anything is attainable if they work hard enough, and that the Chinese phrase “study one’s way to status” (学而优则仕) can still hold true—even under a repressive regime controlled by the Party.

While years of higher education separate Respiratory Institute physicians from their patients, something different compels each one of the doctors to serve their fellow man through research and clinical practice. These physicians, despite their biomedical orientation, are trained to not just to battle disease, but, atypically, to do so in a way that minimizes their patients’ financial distress. Perhaps this desire stems from a profound moral calling, one that has reshaped itself over the decades to accommodate China’s dynamic social landscape. Perhaps it arises from a more self-seeking desire for international prestige, for a chance at becoming a living legend like the elite physicians before them. Most likely, it is a measured combination of the two. The clinical and social education that physicians at the Respiratory Institute receive from vice chiefs and chiefs reinforces this balance of morality and ambition, pushing young physicians to continue down a trodden path that leads to high-level positions. Similarly, the Respiratory Institute’s legacy of success in the research sector encourages new medical researchers to set their goals high.
Training outstanding doctors like the ones I met in Guangzhou is only one part of a large, complex drive to improve China’s health care. There are no easy fixes in health care. The problems that pervade the system run deep, and every solution comes at a price. If local governments immediately begin cracking down on every physician who accepts gray income, for example, they’d have to pay somehow to keep hospitals from going out of business. Any reforms to China’s health care system must also bear in mind demographic shifts (e.g. a growing middle-class) that are rapidly affecting Chinese preferences and values. I have written little about the specific means of medical reform in China, as The Lancet articles address the issue well in terms that the layman can understand.

The Lancet’s 2008 study of China’s health care system is an attempt, in the words of Arthur Kleinman, to write a single narrative of health and change in China. Kleinman (1995) argues that Chinese society is so fragmented that any attempt to quantify the nation’s development or use aggregate statistics to describe China as a single social unit is dubious. (p. 87) Ethnography empowers the researcher to make valuable observations about other cultures by living among them. It is thus a welcome and needed supplement to economic analyses of cross-cultural phenomena.

As my thesis advisor and academic mentor Nathan Sivin once said, “There is no problem in history that has been fully and adequately solved—at least, no interesting problem.” I chose to write this ethnography in a way that engages an American audience with little prior knowledge of Chinese culture. In portraying the working lives of Chinese physicians, I have only scratched the surface in pointing the unique characteristics of China’s health care industry. That, however, was not the main point of this exercise. In my description of that motley group of Chinese physicians I met in the summer of 2009, I have cast an
empathetic light on a profession facing a crossroads. At the same time, I have fulfilled a personal desire to know with greater clarity how I, the son of two doctors—one American and one Chinese—might have experienced life had the tides of fate cast me on the other side of the Pacific twenty-two years ago.

My generation insists that to ensure a harmonious future for ourselves and our posterity, China and the United States must work together. Economic cooperation is only the beginning. In order to secure a lasting and mutually beneficial relationship, we ought to strike down the cultural barriers and preconceived notions that inhibit our understanding of one other. After all, open minds make for better friends.
Appendix

Organizational Structure of the Respiratory Institute……………………………96

China’s Medical Research System (Cong, 2004, 264) ……………………………97

Physician Career Ladder…………………………………………………………….98

Respiratory Institute Physician Roster……………………………………………102
Chinese Communist Party Central Committee

State Council

Leading Group on Science, Technology and Education

CAS
- Members
- Research Institutes

CAE
- Members
- Research Institutes

MOH
- National CDC
- Medical Schools
- Hospitals
- Regional CDCs

NSFC

Central Military Commission

General Logistics Department

CAMMS
- Medical Schools
- Hospitals

Research Institutes

Legend:

CAS    Chinese Academy of Sciences
CAE    Chinese Academy of Engineering
MOH    Ministry of Health
NSFC   National Science Foundation of China
CAMMS  Chinese Academy of Military Medical Sciences
Physician Career Ladder

High School

Medical College

Bachelor → Masters → Ph.D.

Technical School

Assistant Physician

Licensed Assistant Physician

Low-level

Resident

Licensed Intern

Intern

Clinical (avg) 1 yr

Can prescribe drugs

Mid-level

Attending Physician

Vice Chief

Chief

CONDITIONS FOR ADVANCEMENT TO VICE CHIEF
- Publish 3+ provincial grade theses
- Received an "A" grade on specialty exam
- Score ≥60% on English language exam

CONDITIONS FOR ADVANCEMENT TO CHIEF
- Receive accommodation for research project at the national or provincial level OR receive first or second grade award at the municipal level as main contributor;

OR
- Rank in the top three for municipal level research award;

OR
- Lead a research project at the municipal level

- Be the main author, editor or co-editor of a book (relevant to specialty) and write them themselves
# Respiratory Institute Physicians Roster

<table>
<thead>
<tr>
<th>NAME</th>
<th>RANK</th>
<th>DEPARTMENT</th>
<th>PAGE(S)</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Chen</td>
<td>Assistant Lecturer, Master’s/Ph.D. (post)</td>
<td>Outpatient Clinic, 5th Floor (research)</td>
<td>25, 32, 47-48, 50, 52-53, 58, 81-82, 107-109</td>
<td>Main contact in GZ; former pupil of Dr. Zhong; arranged my research plan</td>
</tr>
<tr>
<td>Dr. Cheng</td>
<td>Resident</td>
<td>Outpatient Clinic, Second Ward</td>
<td>35, 37, 50, 52-56, 70, 100</td>
<td>Hard-working with ambitions to become chief resident</td>
</tr>
<tr>
<td>Dr. Cui (F)</td>
<td>Ph.D.</td>
<td></td>
<td>31, 69</td>
<td></td>
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<tr>
<td>Dr. Fa</td>
<td>Master’s (post)</td>
<td>Second Ward</td>
<td>81, 83, 86-87, 94, 101</td>
<td>Stressed</td>
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<tr>
<td>Dr. Gao (F)</td>
<td>Vice Chief</td>
<td>Haiyin Key Lab, Respiratory Pathology &amp; Sleep Medicine</td>
<td>39, 42, 74-76</td>
<td>Shared long conversations about medical morality, research</td>
</tr>
<tr>
<td>Guan</td>
<td>Master’s/B.M.</td>
<td>Lung Function Lab</td>
<td>30, 75</td>
<td></td>
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<tr>
<td>Dr. Jiang (F)</td>
<td>Advanced Study</td>
<td>Lung Function Lab (Intern)</td>
<td>36-37</td>
<td>Medical student with passion for science</td>
</tr>
<tr>
<td>Dr. He</td>
<td>Vice Chief</td>
<td>Second Ward</td>
<td>69-70</td>
<td>Talkative, sassy</td>
</tr>
<tr>
<td>Dr. Li</td>
<td>Chief</td>
<td>Second Ward</td>
<td>58, 65, 70</td>
<td>Easygoing, friendly with advanced study physicians</td>
</tr>
<tr>
<td>Dr. Ling</td>
<td></td>
<td>First Ward</td>
<td>66-67</td>
<td>Department Director of Respiratory Internal Medicine</td>
</tr>
<tr>
<td>Dr. Liu</td>
<td>Advanced Study</td>
<td>Second Ward</td>
<td>37, 71, 97-98</td>
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<tr>
<td>Dr. Luo</td>
<td>Advanced Study</td>
<td>Second Ward</td>
<td>41</td>
<td>Asked many English questions Jaded;</td>
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<tr>
<td>NAME</td>
<td>RANK</td>
<td>DEPARTMENT</td>
<td>COMMENTS</td>
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<tr>
<td>Dr. Mo</td>
<td>Professor</td>
<td>Haiyin Key Lab, Respiratory</td>
<td>complained about work</td>
<td></td>
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<td></td>
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<td>Pathology &amp; Sleep Medicine</td>
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<tr>
<td>Dr. Peng</td>
<td>Professor</td>
<td>Haiyin Key Lab, Pathogenic</td>
<td>Dr. Fa’s mentor; studied abroad at King’s College, London</td>
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<td></td>
<td></td>
<td>Microorganism</td>
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<tr>
<td>Dr. Qian</td>
<td>Professor</td>
<td>Haiyin Key Lab, Pathogenic</td>
<td>Researcher group leader</td>
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<td></td>
<td></td>
<td>Microorganism</td>
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<tr>
<td>Dr. Qin (F)</td>
<td>Advanced Study</td>
<td>Haiyin Key Lab, Pathogenic</td>
<td>Helped found the Virology Lab; studied abroad at Columbia University</td>
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<td></td>
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<td>Microorganism</td>
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<tr>
<td>Dr. Sang</td>
<td>Vice Chief, Ph.D.</td>
<td>Second Ward</td>
<td>Led patient case discussion</td>
<td></td>
</tr>
<tr>
<td>Dr. Tang (F)</td>
<td>Resident</td>
<td>Haiyin Key Lab, Respiratory</td>
<td>Current pupil of Dr. Zhong; of the same generation of Dr. Chen</td>
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<td></td>
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<td>Pathology &amp; Sleep Medicine</td>
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<tr>
<td>Dr. Wu (F)</td>
<td>Attending</td>
<td>Haiyin Key Lab, Pathogenic</td>
<td>Went on paternity leave</td>
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<td>Microorganism</td>
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<tr>
<td>Dr. Yang</td>
<td>Vice Chief</td>
<td>Second Ward</td>
<td>Upbeat; best table tennis player at the Respiratory Institute</td>
<td></td>
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<tr>
<td>Dr. Ye (F)</td>
<td>Assistant Research Fellow</td>
<td>Second Ward</td>
<td>Led small group; spoke with thick Cantonese accent</td>
<td></td>
</tr>
<tr>
<td>Dr. Zhang</td>
<td>Vice Chief</td>
<td>Haiyin Key Lab, Pathogenic</td>
<td>De facto leader of Virology Lab; working on TCM research</td>
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<td></td>
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<tr>
<td>Dr. Zheng</td>
<td>Chief</td>
<td>Second Ward</td>
<td>Led small group; taught students without compromise</td>
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<tr>
<td>Dr. Zhong</td>
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<tr>
<td><strong>Professor</strong></td>
<td><strong>Second Ward</strong></td>
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<td><strong>RANK</strong></td>
<td><strong>Lung Function Lab</strong></td>
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<td><strong>Academician, Professor</strong></td>
<td><strong>DEPARTMENT</strong></td>
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<td>Department director; led small group and ward rounds</td>
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<td></td>
<td>Department director; studied at NCTR in Jefferson, Arizona</td>
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<td>COMMENTS</td>
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<td>Respiratory Institute Chief; Head of the Chinese Medical Association; Member of the Chinese Academy of Engineering</td>
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Bibliography

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