PUBLIC HEALTH AND THE MODERNIZATION OF CHINA, 1865–2015

Liping Bu
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This book, based on extensive original research, traces the development of China’s public health system, showing how advances in public health have been an integral part of China’s rise. It outlines the phenomenal improvements in public health, for example the increase in life expectancy from 38 in 1949 to 73 in 2010; relates developments in public health to prevailing political ideologies; and discusses how the drivers of health improvements were, unlike in the West, modern medical professionals and intellectuals who understood that, whatever the prevailing ideology, China needs to be a strong country. The book explores how public health concepts, policies, programmes, institutions and practices changed and developed through social and political upheavals, war, and famine, and argues that this perspective of China’s development is refreshingly different from China’s development viewed purely in political terms.

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Liping Bu
In memory of my parents
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This book has been a long time in the making. It started in 2001 when I was examining the YMCA archives at the University of Minnesota on a possible topic of physical education and national strength in early twentieth-century China. I had just completed a monograph, *Making the World Like Us: Education, Cultural Expansion, and the American Century*, and wanted to continue the research on American educational influence abroad. I was surprised to find, with great excitement, that the YMCA had engaged in active public health education in China, which had not been closely examined by scholars. In the following decade, I read and examined documents on public health at various libraries and archival centers in China, the United States, and the United Kingdom. I was fortunate that many local archives were opened up to the public in China and various grants enabled me to carry out the research.

In 2006, an Andrew Mellon fellowship at Needham Research Institute allowed me to do systematic reading and research on medicine and public health during my sabbatical at Cambridge University. I took the opportunity to broaden my knowledge by attending classes and lectures in the Department of History and Philosophy of Science at Cambridge. I am grateful to Professors Sir Geoffrey Lloyd and Christopher Cullen for letting me sit in their classes. The weekly reading seminar at Needham Research Institute was the best of its kind, where scholars shared their readings of original texts by translating, interpreting, discussing, and debating the accurate meaning of the original texts in translation. How do you translate *daoyin* (道引, a kind of Chinese yoga exercise) into English when there is no cultural equivalent to convey its meaning to a Western audience? The seminar deepened my appreciation of the practice of close reading of original texts in research and the emphasis of language and cultural proficiency in intercultural studies. Colleagues and friends at the NRI reading seminar will notice its sustained influence on me when they read the introduction paragraph of this book. With fond memories and deep appreciation, I thank John Moffett, Susan Bennett, and Christopher Cullen of the Needham Research Institute, and fellow researchers for the wonderful experience of shared intellectual pursuit and productive research.

The “Symposium on Global Health Histories” at the Natcher Conference Center on the campus of the National Institutes of Health in November 2005 was
a turning point in the extension of my research into the second half of the twentieth century. The conference not only introduced me to the professional network of public health scholars but also to the new archival collection of Chinese public health at the National Library of Medicine. The health posters of the collection offered extraordinary visual and textual information on Chinese public health campaigns from the 1930s to the 1980s. I was fortunate to have the opportunity to work on the splendid health posters over several summers, during which I examined the data and gradually reshaped the design of my research and writing of China’s public health movement and modernization. The visual images provided unique values of information as historical data. I am most grateful to Drs. Elizabeth Fee and Paul Theerman for the opportunity to work on the collection at the History of Medicine Division. The research also provided me delightful opportunities to collaborate with Liz Fee on several public health essays. I recall these wonderful productive summers with gratitude to Liz for the joyful writing of essays, and to the staff at the History of Medicine Division for their collegial support and friendship.

At the National Library of Medicine, I had the pleasant opportunities to attend formal lectures on the history of medicine and engage in casual lunch conversations with medical scientists on the campus of NIH. At one of the lunch conversations, a young medical scientist surprised me with the comment that “Chinese medicine (中医) has no science.” The implication was Chinese medicine had little value. When I told him that he sounded like those who wanted to abolish Chinese medicine in the 1920s, he conceded “maybe [it has] 30 percent of science.” Non-Western medicine is still considered non-scientific by many in the scientific profession. Perhaps, a good educational effort is a way to reduce the bias of conventional impressions. In that regard, I was fortunate working with some staff members at the History of Medicine Division to curate several digital and physical exhibits on Chinese anti-disease health movements at the National Library of Medicine. I also created a higher education digital module on Chinese health campaigns in the twentieth century, which can be accessed at the National Library of Medicine. I hope these educational materials will help people better understand public health and Chinese medicine.

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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>CCP</td>
<td>Chinese Communist Party</td>
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<tr>
<td>CEPB/NEPC</td>
<td>Central Epidemic Prevention Bureau/National Epidemic Prevention Bureau</td>
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<tr>
<td>CFHS</td>
<td>Central Field Health Station</td>
</tr>
<tr>
<td>CMA</td>
<td>Chinese Medical Association</td>
</tr>
<tr>
<td>CMB</td>
<td>China Medical Board</td>
</tr>
<tr>
<td>CMMA</td>
<td>China Medical Missionary Association</td>
</tr>
<tr>
<td>GMD</td>
<td>Guomindang, Nationalist Party</td>
</tr>
<tr>
<td>IHB/IHD</td>
<td>International Health Board/International Health Division</td>
</tr>
<tr>
<td>JPHA</td>
<td>Jiangsu Public Health Association</td>
</tr>
<tr>
<td>LNHO</td>
<td>League of Nations Health Organization</td>
</tr>
<tr>
<td>MEM</td>
<td>Mass Education Movement</td>
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<td>NHA</td>
<td>National Health Administration</td>
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<td>NMAC</td>
<td>National Medical Association of China</td>
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<td>NRCMS</td>
<td>New Rural Cooperative Medical System</td>
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<td>PUMC</td>
<td>Peking Union Medical College</td>
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<tr>
<td>RAC</td>
<td>Rockefeller Archives Center</td>
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<td>RF</td>
<td>Rockefeller Foundation</td>
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<tr>
<td>SMC</td>
<td>Shanghai Medical College</td>
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<tr>
<td>YMCA</td>
<td>Young Men’s Christian Association</td>
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Xinhua yuebao
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Introduction
Modernization and public health

The science of hygiene is originated in Europe. Westerners claim that the more civilized a country and the more important a nation, then the more sophisticated their laws of hygiene are; of the opposite is a weak country and an inferior people.¹

Thus began the article “On Hygiene” in the popular Chinese magazine, Dongfang zazhi (东方杂志, Eastern Miscellany), in 1905. The author discussed the importance of hygiene and modern medicine in relation to China’s future, and made the argument that hygiene, on a small scale, affected the health of individuals and families, but on a large scale, defined the fate of a country and its people. He put hygiene squarely in the equation of the advancement of a country and the quality of a people. In the article, the author lamented the decline of Chinese medical development and the sanitary neglect by the people and the officialdom, which, in his opinion, led to the status of a weak China. This point of argument was common among Chinese modernizers who regarded hygiene and modern medicine essential elements of a strong and modern China. After the 1895 Sino-Japanese War, China was portrayed as “the sick man of Asia,” a humiliating metaphor previously used to describe the declined Ottoman empire.² Writings of Western missionaries and newspapermen also popularized that China was a filthy and disease-ridden backward country that needed Western “progressive” forces to transform it. Chinese modernizers including intellectuals, officials and urban merchants, out of admiration of the advancement and power of the West and concerns over China’s plight in the struggle against foreign dominance, understood hygiene and public health in light of national strength. They urged the Chinese government to emulate the West to create a clean and healthy nation to join the modern world. Scholars have examined the subject of hygiene and public health from different perspectives. Ruth Rogaski analyzes that hygienic modernity had deeper implications of racial prejudice and social and cultural biases.³ Hu Cheng points out that foreigners and Chinese had different narratives of the “unsanitary” China, which showed that perceptions of foreigners were closely tied to their attitude of Western cultural superiority whereas Chinese views were intertwined with China’s struggle to modernize and maintain national sovereignty.⁴
2 Introduction

The idea of a clean and healthy nation gained significant social and cultural meanings in the late nineteenth and early twentieth centuries when the West was energized by the social reforms of hygiene and sanitary movement. Cleanliness defined the advancement of a civilized nation and the virtues of modern citizens in terms of good morals, physical health, and cultured manners. The opposite indicated the backwardness of a weak uncivilized country and the lack of moral virtues of individuals. In dissecting the power of the concept of civilization in modern history, Brett Bowden exposes it as a stage-managed account of history that legitimizes imperialism, uniformity, and conformity to Western standards. He argues that the idea of civilization has been deployed to dichotomize peoples, cultures, and histories to justify all manner of interventions, aggressive colonization, and sociopolitical engineering in the history of the West. Nonetheless, cleanliness became a hallmark of modern citizens and “civilized” societies, while uncleanliness and high death rates characterized “uncivilized” societies. China, India, and Egypt—countries of distinct ancient civilizations—were defined as uncivilized in contrast to the “civilized world” of the West. Newspapers and popular magazines helped spread the image of these countries as unclean and uncivilized societies in the public mind to construct the divide of the advanced West and the backward non-West. Chinese elite and modernizers, who bought into but were anxious to change the dichotomy, used the power of media to disseminate information of hygiene and public health and compel Chinese people to take action and clean up the image of an unsanitary China. The discourse of cleanliness was integral to the repertoire of modernity and national rejuvenation throughout twentieth-century China. It projected the prospect of a nation and people emerging from the old society of dark and sickly ignorance into the bright and healthy enlightenment of human advancement.

Chinese hygiene and public health movement started differently from the Western movement in terms of circumstances, motivations and purposes. Europe and America began the sanitary and public health movement as social reforms to address the problems of filth, poverty and epidemic diseases brought on by industrialization, with the purpose of achieving economic efficiency and productivity and humanitarian improvement of the working poor. Voluntary associations of concerned citizens played important pioneering roles in getting the local and national governments involved to take on the responsibility of sanitation administration and public health in Western nations. Chinese promotion of sanitation and public health was initiated by intellectuals and modern medical professionals who sought to modernize China to transform old institutions and to change people’s social and political thinking and behavior. They were not motivated by the concerns of economic loss of diseased people to national power as the West did, but by the concerns of China’s decline and inability to keep its sovereignty in encountering the aggressive foreign powers. Public health advocates promoted modern medicine and public health as a spearhead to change China from a weak traditional society into a strong modern nation.

The history of Chinese public health modernization was intertwined with the major events of China’s political, cultural and social developments. The public health
movement promoted science as the central force of modernization to transform China. Emphasis on science helped shape the rhetoric of the Chinese public health movement and facilitated the dissemination of scientific knowledge of disease and modern medicine. Moreover, public health and scientific knowledge were promoted in relation to the political, social and cultural needs of reforms and revolutions that had been led by various groups who held different ideological convictions. In the endeavor to make China modern and strong over the long decades of the twentieth century, different political beliefs and competing visions of a modern China only enriched the various modes or paradigms of modernity to be applied to the reconstruction of China from the late Qing to the current era of reforms. The paradigm of modernity during the Republican era (民国时期) was informed by anti-imperialist nationalism and Social Darwinian concepts of competition and adaptation. Modernization meant imitation of Western institutions and emphasis on science as the core value of culture. The socialist paradigm of the People’s Republic of China (PRC) was guided by a clear theoretical framework with the Soviet experience initially used as the model of state-building and national development before a Chinese model of socialist modernization was created in the Mao era. The post-Mao economic reforms emphasized the four modernizations as the paradigm of modernity by shifting to a system of market economy to achieve national prosperity and power.

The late Qing government adopted the “New Policy” (新政) of reforms to modernize the polity in 1901 under both domestic and foreign pressures. Institutional modernization included the establishment of the first public health agency of China, the Beiyang Sanitary Service, in 1902. Social Darwinian thought dominated the intellectual persuasion of the urgent needs to reform the system and to change the culture. The tensions within the society and Qing’s inability to effectively carry out reforms led to its fall in the 1911 revolution, which ended the two-thousand-year-old dynastic system and created a republic political system. The revolutionary acceleration of institutional change of modernization saw the introduction of more public health measures and the support of popular health education, the most significant of which was the legislation on notifiable diseases by the government and the health education campaign by social and professional organizations. The Beiyang government (北洋政府) of the early Republic projected its progressive image by promoting sanitation and public health in a changing society, but the commitment to building a modern health system did not come until the establishment of the Nationalist government in Nanjing in 1927. The Nationalist government created a Ministry of Health in 1928 in accordance with the organizational standards of modern nations and propagated Sun Yat-sen’s three people’s principles as the paradigm of modernization. A close examination of government propaganda materials reveal, however, that a strong anti-imperialist nationalistic argument informed by both Social Darwinian concepts and modern science was popularized in the health education and national development campaigns. Moreover, modern medical professional elite, rather than the political leaders, worked as the true driving force of the institutionalization of a health administrative system in the Nationalist era, opting to follow the state medicine model to solve China’s huge health challenges. When the PRC was
established in 1949, a socialist paradigm of modernization was applied to reconstructing China and building a people’s healthcare system with the provision of free healthcare to the vast urban and rural population. The system, however, was fundamentally changed with economic reforms since the 1980s. The introduction of market forces to the economy helped create enormous wealth for the nation, but the market reform of the health system resulted in unaffordability and inaccessibility of healthcare, seriously eroding the vision of a fair and just society that the government set out to build. The current government is committed to deepening the health system reform and continues to search for a health system that will be affordable and accessible with provision of primary healthcare to everyone.

This book on public health provides a focal point to examine the long process of modernization of China from the late Qing to the current era of reforms in a global context. It investigates not only domestic political, social and cultural transformations but also China’s relations with the larger world. Buzan and Lawson recently made the argument that industrialization, modern state-building, ideologies of nationalism, socialism and racism, and the destabilization of balance of power fundamentally contributed to the global transformation in the nineteenth and twentieth centuries.9 Such an argument can be readily applied to the transformation of China as a case study, as these elements influenced China’s modernizations and its interactions with other countries and international organizations. The hygiene and public health modernization, which was part and parcel of modern state-building and national development, was a politicized endeavor that intertwined with Chinese reforms and revolutions in a broad sense. It encompasses the change of people’s mentality and behavior and the reconstruction of institutions and political systems of a modern state. From Social Darwinian views and the discourse of “the sick man of Asia” through the revolutions to the rise of China again, national health has been the image and the substance of the modern transformation of China.

My examination of public health modernization concentrates on disease-prevention, healthcare, reforms and revolutions, and modern reconstruction of China. It does not deal with anti-opium and anti-smoking movements, which are important subjects of public health that merit separate treatments.10 In this book, I use the plural form of “Western and Chinese medicines” to mean not only different drugs but also different systems of medicine. The term “Western medicine” (xiyi, 西医) has been used interchangeably with “modern medicine,” “new medicine,” and “scientific medicine” in modern China, and this particular feature is reflected in the writing of this book. Similarly, the Chinese term “weishing, 卫生” is used broadly to convey the meanings of hygiene, sanitation, and health. The word “health” has been used in Chinese documents as “jiankang, 健康,” “weisheng, 卫生,” and “baojian, 保健” at different historical times and different contexts, as school health has been translated as “xuexiao jiankang, 学校健康,” and “xuexiao weishing, 学校卫生,” and people’s health has been translated as “renmin jiankang, 人民健康,” “renmin weisheng, 人民卫生,” and “renmin baojian, 保健.” The term “public health” is usually translated as “gonggong weisheng, 公共卫生” or “weisheng, 卫生.” A few themes have emerged to illuminate the interplays of different parallels of events in this extensive study of public health and the modernization of China.
International and transnational influence

Westerners considered Chinese cities salubrious and Chinese people healthy in comparison with those in Europe and America in the mid-nineteenth century when China had fewer of the epidemics that plagued Western industrial cities. The picture changed after industrial factories were increasingly built in treaty port cities after 1860s. Western nations had opened up Chinese ports for trades and factories with wars and unequal treaties since China lost the war over British opium traffic in 1842.\textsuperscript{11} Urban squalor, slums, poverty and disease had grown along with modern industries, as factories expanded into farming lands and shanty towns emerged near the factories. Western missionaries were known as the first critics of Chinese unsanitary conditions but they were less known for being amazed at the hygienic habits of Chinese people who had the tradition of using boiled water and having public bathhouses. Missionaries carried to China the modern ideas of sanitation and disease prevention that were developing in their home countries in the nineteenth century. They promoted and practiced modern medicine to open up China for evangelization, and initiated hygiene education and disease prevention in places where they exercised broad influence. In propagating Christianity and Western culture, they promoted Western medicine as the scientific medicine and criticized Chinese medicine as unscientific superstition to negate the value and relevance of traditional culture in modernity. Since knowledge of hygiene and disease prevention was part of modern medicine, the dissemination of health knowledge further helped legitimize Western medicine as the true knowledge to challenge Chinese medical knowledge. The popular health education campaigns in the 1910s brought modern hygiene and disease prevention to a wide range of Chinese social classes and places as they were held in major cities across China. The campaigns were organized and conducted in collaboration with local governments by medical missionaries, the YMCAs, and Western-trained Chinese doctors of modern medicine. These three groups formed the Joint Council on Public Health Education in 1916 (renamed Council on Health Education in 1920) to lead the week-long health education campaigns in different provinces to promote Western medicine and public health. Missionaries’ interest in health education was initially driven by their zeal to evangelize China but their enthusiasm tapered off when the campaigns took on a new life as a health education movement. Chinese local governments sponsored the campaigns with financial and human resources while the Council provided the technical expertise and educational materials. In each city where the campaign took place, students, teachers, officials, missionaries and YMCA secretaries were mobilized to help organize and lead the health lectures and the explanation of health exhibits, which attracted people of all walks of life. Tens of thousands of urban residents, men and women, attended the health education campaigns as major events in their cities. Visual materials and illustrations, such as pictures, posters, charts and diagrams, helped disseminate information about the cause of disease, flies as the agents to spread disease, and the importance of hygiene and health in relation to individual well-being and national strength. The health education campaigns helped raise public awareness, particularly those in cities,
about the individual’s ability to prevent disease and keep healthy. Moreover, the campaigns sometimes conducted smallpox vaccination and contributed to the development of a modern public health discourse in Chinese society before the training of public health professionals was established at medical schools. The key leader of the campaigns, William Wesley Peter (known as W. W. Peter), who was a YMCA secretary with unique talents of health showmanship, urged Chinese participants to think of education, laws, and statistics as the main building blocks to the foundation of public health in China. The Council bequeathed a large collection of visual health education materials and a rich legacy of methods to popularize health knowledge. For his significant beneficiary contribution to China, Peter was recognized by the Chinese government with a 5th class medal of the Order of Golden Grain (*wudeng jiahe zhang*, 五等嘉禾章).12 John D. Rockefeller, Jr. received the same type of medal for his contribution to China by building the Peking Union Medical College (PUMC).13

The Rockefeller philanthropy came to China immediately after the 1911 revolution, with investigations of the health and medical conditions of China. When the Rockefeller Foundation (RF) was formed in 1914, it envisioned modernizing China with medical science by establishing a world-class medical college, Peking Union Medical College, to spearhead the modern medical enterprise in China. For that purpose, the RF created a China Medical Board (CMB) to take charge of PUMC and related matters. PUMC was built upon the medical school that Anglo-American missionaries had created and run for over a decade. Rarely did a transfer of the ownership of a medical school from the missionary to the philanthropist impact the future of an entire nation’s medical and health profession in such a degree as the PUMC, for the college produced a small but influential group of elite medical professionals who eventually dominated Chinese medical education and health administration. The thrust of the Rockefeller medical enterprise signified the beginning of an end of the missionary-dominated modern medical education and the rise of secular education of medical science in China. It ultimately helped shape the creation of China’s national health system, with John B. Grant and the PUMC circle playing the key role in the Nationalist government. The CMB and PUMC epitomized RF’s influence in China, just as Standard Oil and YMCA embodied the American influence in China, in the first half of the twentieth century.14

The RF introduced modern medical science and public health knowledge to the training of Chinese medical students while using China as a medical laboratory to study diseases and health problems. With medical reform taking place at home in the United States, the RF found the power of medical science an ideal tool to advance mankind in a global scheme of transforming traditional “backward” societies via sanitation and disease control. Medical colleges and institutions and health programs were established in different countries across the globe, under the direction and supervision of the International Health Board (IHB, which became the International Health Division in 1927, IHD).15 In order to publicize modern medicine and recruit students to study it, CMB enlisted the help of W. W. Peter and the Council on Health Education to a campaign to
promote modern medicine among students to encourage them to take modern medicine as life work. In the meantime, medical scientists of the RF, who had low regard for the standard of medical education at missionary schools, tried to set up as rigorous a standard as the best American medical college would expect for the faculty and students at PUMC. They even made English the language of instruction, all in the name of upholding scientific standards. The PUMC produced a total of 321 medical doctors from 1921 to 1943 (World War II disrupted its operation), and graduated 279 nurses from 1924 to 1950. Many of this small elite group became key leaders of the Nationalist health administration system and at medical institutions of research and education. With the production of such a small number of medical professionals, the RF’s China medical enterprise barely made a difference in bringing the benefits of modern medical science to ordinary Chinese people. The RF’s major influence in China lay in its contribution to medical education and the leadership of a modern health administration system, thanks particularly to the pivotal role played by John B. Grant.

Grant worked in China for 17 years from 1921 to 1938 as head of the Hygiene and Public Health Department at PUMC and the China representative of the IHB/IHD of the RF. His profound interest in and commitment to public health, facilitated by his extensive network and close relations with Chinese medical and political leaders, led to his exceptionally fruitful career in training public health leaders and shaping the development of a national health system in China during the tumultuous years of political instability and uncertainty. It is not an exaggeration that Grant, to a great extent, provided the continuity of guidance in public health professionalization and modernization from the Beiyang decade to the Nanjing era. He served, by invitation, as the advisor to the Chinese government in all matters pertaining to health, while he worked at PUMC. Grant’s major contributions were not just his creation of public health programs and his influence in the development of a national health administrative system of the Nationalist government. More importantly, his teaching and promotion of the ideas of state medicine, social medicine and preventive medicine left indelible imprints in the Chinese health profession. His ideas and methods of public health education have exerted a long-term influence in China under different political systems.

Grant also played an important role in advising and facilitating the involvement of the League of Nations Health Organization (LNHO) in the modernization of China’s health system and national development. From the initial negotiations to establish a National Quarantine Service in the 1920s to the building of a national health administrative system in the 1930s, the LNHO provided China not only assistance of professional expertise and the training of personnel but also the support of financial resources. The League of Nations’ involvement even expanded beyond the health field to various aspects of economic planning and construction of China before it was disrupted by the outbreak of World War II. Throughout, Grant and the RF worked with the League’s representatives to influence China’s national health programs and to provide parallel assistance of training and financial support, even though the LNHO leaders tried to distance themselves from the RF to retain more independent approaches to China’s health
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modernization. The League’s involvement positively influenced, to a certain extent, China’s successful negotiations with foreign powers over its maritime sovereignty and the institutional building of a state medicine system.

While the Nationalist government was assisted mostly by the RF and the LNHO in its health modernization, the CCP government received international aid from different supporters in its health development. During the Yanan era, international health teams and individuals came from different countries to help the CCP in the anti-fascist movement of World War II. They brought not only advanced medical equipment but more importantly the badly needed medical expertise, which significantly helped improve the battle field medical service and the training of CCP medical personnel. With the victory of CCP over the Nationalists in the civil war (1946–1949) and the establishment of the PRC in 1949, the Soviet Union became a key influence in China’s health reconstruction as well as national development in a broad sense. The Cold War had shaped the world into a bi-polar international order and China’s participation in the Korean War made the United States an impossible model of development. The Soviet emphasis on preventive medicine, which had attracted the attention of Chinese health professionals in the 1930s–1940s, was now promoted by Chinese political and health leaders across the country. Although the emphasis on prevention had long been the health policy of the CCP, prevention of disease was incorporated into national defense in the new Patriotic Health Movement in the early 1950s as measures to defeat the alleged American germ-warfare during the Korean War. The Chinese health movement was a politically mobilized patriotic mass movement for disease prevention, national defense, economic productivity, and socialist reconstruction.

Economic reforms of the past three decades fully integrated China into the world, where major international organizations, such as the World Health Organization (WHO), World Back, International Monetary Fund (IMF) and United Nations organizations, worked with the Chinese government in the restructuring of the economy, health, and other aspects of social development. In regard to the health sector reforms, American influence was significant in shaping a new health insurance system to replace the socialist people’s healthcare. But the American model has not been working well in China, and the government introduced a new plan of health system reform in 2009 with the intention to build a health system with provision of primary healthcare to everyone. The search is still going on for a healthcare system suitable for the socioeconomic conditions of the Chinese market economy, as the government deepens the reform of the health system.

Chinese modernizers, modern medicine, and public health

Edmund S. K. Fung argues that the interactions of three major trends of intellectual orientations, namely liberalism, conservatism, and socialism, underpinned the cultural and political modernity of China. Marketization of the economy is apparently economic liberalism that underlies the current construction of Chinese
modernity. Of all the different political and intellectual persuasions of twentieth-century China, there was a shared common goal of building a strong modern state with national unity. The semi-colonial status of China at the end of the nineteenth century resulted from constant foreign encroachment and the continuous decline of the Qing empire. The contrast of clean streets and bright tall buildings in the foreign settlements to the filthy and muddy streets and shanty towns in the Chinese sections in many treaty ports stimulated Chinese modernizers to seek fundamental reforms by learning from the West. The late Qing reformists, such as Yan Fu and Liang Qichao, noticed that Western nations all emphasized physical education of the people and promoted public health. They advocated physical fitness of the masses as one of the fundamental means to regain China’s national strength. To the reformists, the hope of national revival lay in the training of Chinese people into new citizens of strong moral virtues, intelligence and physical fitness capable of defending their country and competing with other nations. Their thinking was profoundly influenced by Social Darwinian interpretation of a world of competing nations where the strong and superior (优) would survive and the weak and inferior (劣) would be weeded out. The meaning of “competition” and “evolution” was understood on both personal and national levels when foreign powers were carving up China into their spheres of influence. The individual to the national body was cast in the relation of the cell to a social organism in an evolutionary process of “survival of the fittest.”

Medicine was supposed to save people’s lives and better the society, and medical modernization was thought an essential step towards reviving China. Sun Yat-sen and Lu Xun, for instance, both started their career by studying modern medicine, though each in their own ways realized that a fundamental change of China needed something more revolutionary than what modern medicine could offer. The issue of medicine and public health was played out in the larger context of political and social revolutions of China. Hence, modern public health was intertwined with Chinese nationalist struggle against foreign imperialist dominance and the transformation of the traditional Chinese society into a modern nation. Western medicine offered the science of prevention, and germ theory provided the powerful explanation that pinpointed the cause of disease; whereas Chinese medicine lacked the quality of modern medicine to zero in on one single cause of disease, but used instead a holistic approach of diagnosis. Because of this fundamental difference, modern medical professionals and modernizers attacked Chinese medicine as lacking scientific foundation and therefore labeling it useless superstition. The tensions between Chinese medicine and Western medicine were not merely medical competition but political and cultural contentions as well. This book shows that Chinese medicine faced the crisis of being eliminated by the modern authorities three times in 1914, 1929, and the early 1950s respectively, all in the name of modernization and science. The modern transformation of Chinese medicine illustrates the history of Chinese modernization and vice versa. In their recent books on the modernization of Chinese medicine, Sean Hsiang-Lin Lei investigates the tension and divide of Chinese and Western medicines and shows how practitioners of Chinese medicine turned
the challenges into a modernizing force to transform themselves into an organized modern profession, whereas Bridie Andrews concentrates on the adaptation and accommodation of both Western and Chinese medicines. Their scholarship further illuminates that medical developments were tied directly to the particular cultural settings and transformative modernization of China.

Modernizers of early twentieth-century China, including professionals of modern medicine, intellectuals, journalists, urban merchants and government officials, promoted Western medicine and public health with the political rhetoric of national strength and social progress. Vital statistics on national death rates provided them with the convincing data that public health was a critical element of modernity and nation strength, as advanced nations like the United States and Britain had low death rates, whereas weak nations like India and China had high death rates. The Western argument of economic gain in good health had little appealing power to the Chinese when their country was being dismembered by foreign powers. The first and utmost concern of the Chinese was the fate of their country in the face of foreign powers’ scramble, and their attention to medicine and public health was stimulated by the larger political issues of national sovereignty. Of the first resolutions of the National Medical Association of China (NMAC, 中华医学会) upon its creation in 1915, was the request for the Chinese government to set up a modern Public Health Service to take care of national health, as did all advanced nations. The NMAC defined its mission as serving the nationalist effort to modernize and strengthen China by advocating modern medical science and arousing public interest in public health and preventive medicine. The Chinese medical association has been champion of public health throughout the twentieth century, which differed from their counterpart in America. It played an active role in the early public health education campaigns and emphasized national health and national strength as the theme of health education. Dissemination of public health information also served to promote science and Western medicine in Chinese society where people relied on Chinese medicine and had little knowledge of Western medicine. The medical field became a contesting ground of different political forces that pitted progress and modernity against backwardness and tradition. Progress and national strength were constant themes in the promotion of Western medicine as the scientific true knowledge in contrast to the attacks on Chinese medicine as unscientific superstition and backward tradition. In the early twentieth century, science attracted Chinese intelligentsia with significant meanings of cultural modernity in their search for a new national identity and order. When Western ideas and scientism increasingly shaped Chinese intellectual and political thinking, support of modern medicine and public health meant politically progressive and intellectually modern.

Chinese intellectuals launched frontal attacks on traditional culture while embracing science as the new culture during the New Culture and the May Fourth Movements. Science gained the cultural authority to define the truth not only in the medical field but also in every aspect of social, political and economic life. In the iconoclastic revolutionary transition from the traditional cultural mold to the new age of science, concepts of science and modernity became the driving force
to orient Chinese intellectual pursuit and political revolution. Intellectual modernizers considered the contention between Chinese and Western medicines not a question of medical profession but a political fight between the old and the new, the backward and the progressive, and the traditional and the modern. Chinese medicine was considered the symbol of old culture while Western medicine the practice of science and measure of modernity. The attacks on Chinese medicine and tradition influenced the young students in their critical view of Chinese medicine as things of the past. Attempts to promote Chinese medicine were identified with warlords’ political militarism to return China to the past and to obstruct the revolutionary endeavor of the Nationalist Party (GMD, Guomindang). The new “cultural authority” of science was reshaping China’s intellectual thinking, social values and political ideologies. Science even became an “ideological identity” of the revolutionaries against the conservatives, permeating the medical front as well as the political and social and cultural domains.

Both the Nationalist Party and the Chinese Communist Party (CCP, Gongchandang) embraced science as the foundation of their ideologies and promoted science in their revolutionary visions for a new society. Modern medicine and hygiene and public health were important parts of the revolutionary goals of the two political parties, but their divergent political beliefs guided their respective revolutions and state-building through different routes of national mobilization and reconstruction. The Nationalists established a government in Nanjing and continued the promotion of national health for a strong China by undertaking systematic modernization of medicine and health institutions. Significant accomplishments were the creation of a national health administrative system with the policy of state medicine and the establishment of medical training and research facilities. The Ministry of Health of the Nationalist government attempted the extreme action of abolishing Chinese medicine once for all, which intensified the confrontation between Chinese medicine and Western medicine but stimulated practitioners of Chinese medicine to unite and fight with new energy and modern political tactics. Jiang Jieshi, leader of the Nationalist Party and government, did not take serious interest in health modernization but emphasized personal hygiene and civilized behavior in the New Life Movement to shape the modernization of Chinese society. The Nationalist government focused on institutional building as the center of health modernization, and neglected to undertake land reforms to address the major socio-economic problems of poverty and subsistence living that were fundamental to public health.

The CCP launched health movements in their revolutionary bases in rural China, and emphasized disease prevention as an important aspect to preserve revolutionary force and better people’s lives. The CCP health programs were guided by their socialist political ideology and vision of an equal society. To improve people’s health conditions was one significant goal of the overall social reforms, as the revolution aimed to transform not only the socio-economic institutions but also the thinking and attitude of people from the old feudal and superstitious mode to the modern and scientific outlook of socialism. Hygiene and public health were advocated as important components of the revolutionary
cause and were integrated in the activities of socioeconomic development in the CCP regions. Mao Zedong, leader of the CCP revolution, took a great interest in medicine and public health and wrote frequently to promote the importance of public health and the development of a new CCP-led society. In contrast to the Nationalists, the CCP made use and encouraged the integration of Chinese medicine and Western medicine in its revolutionary transformation of China. Prevention of disease and the unity of Chinese and Western medicines were key elements of the national health principles of the People’s Republic of China in the creation of a people’s healthcare system. The integration of Western and Chinese medicines was not without opposition from the health leaders in the early 1950s but the intervention of political leaders in the modernization of Chinese medicine with scientific knowledge led to the unique accomplishments of creating a new medicine called the integrative medicine (中西医结合), which co-exists with Western medicine (西医) and Chinese medicine (中医) to benefit Chinese people today. The PRC made the extraordinary achievement of providing free healthcare to the large Chinese population with low costs in the 1950s–1970s. Dozens of major epidemic diseases, such as smallpox, plague, cholera, typhus, typhoid, polio, kala-azar, filariasis, schistosomiasis, tuberculosis and malaria, were either eradicated or brought under basic control. With accessible healthcare and improved living standards, people’s health significantly improved with life expectancy increased from 38 in 1949 to 65 in 1975. China was considered a model for the developing world with the creation of a low-cost healthcare system.

The post-Mao economic reforms fundamentally shifted the foundation of economic structure through privatization and marketization. As a result, the people’s healthcare that had been built upon the socialist collective economic system collapsed and the country experienced a healthcare crisis, with some old epidemic diseases re-emerging as health threats and high medical costs sending families into poverty. After the use of market forces to reform the health sector failed, the government introduced a comprehensive health system reform plan in 2009 and is continuing to deepen the health system reform. It’s a challenging but imperative task for current Chinese modernizers to make the health system reform successful when they deliver the promise of a good life in a fair and just society under a new modernization paradigm.

**Government policies and health institutions**

Public health has been a vital component of the institutional building of a modern state and a transformative force to change people’s attitude, values, and behavior.

The demand for the Chinese government to establish a modern sanitary administration initially came from foreign powers during the negotiations of returning of cities to China in the wake of suppression of the Boxer Uprising. The Beiyang Sanitary Service (北洋防疫处) was established in 1902 under the pressure of foreign powers and China’s struggle to modernize and remain
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sovereign. This initiation of creating a government public health institution differentiated China from the West in the endeavor of public health administration, and underscored the issues of national sovereignty and struggle against foreign dominance in China’s public health modernization. Within China, foreign powers enjoyed the authority of controlling public health at treaty ports in addition to many other privileges under the unequal treaty system. Public health issues were often dealt with by the Ministry of Foreign Affairs rather than the Ministry of Interior of the late Qing government. As public health administration became a gauge to measure progress and modernization efforts at the turn of the twentieth century, both central and local governments set up public health institutions to project their progressive and modern image. Sometimes, local government went a step ahead of the central government in sponsoring and enforcing public health programs, especially in cities where Western influence was strong. The late Qing’s decision to establish the Beiyang Sanitary Service came as part of the modernization programs of “New Policy.” Yuan Shi-kai played a leading role in the modernization programs, despite his controversial place in modern Chinese history. He experimented with creating a variety of modern institutions, such as those of sanitation, police, education and the military, before the Qing court took steps in this direction. When he was Viceroy of Zhili, Yuan even set up the first women’s medical department in Tianjin to take charge of a government-run women’s medical school with a hospital. When a plague epidemic broke out in northeast China in 1910, the fight to control the plague was complicated by international intrigues of the powers to undermine Chinese sovereignty. When the Chinese medical scientist Wu Liande became the leader of the new North Manchurian Plague Prevention Service in 1911, China asserted its ability in modern administration of epidemic control and its sovereignty on the international stage.

The demise of the Qing dynasty signified not only the political transition from the dynastic imperial system to a modern polity of republic but also the creation of a new knowledge system of medicine and public health based on science. As president of the new Republic, Yuan Shikai favored modern medicine at the expense of Chinese medicine to publicize his government’s political progressiveness and himself a committed modernizer of China. Presidential orders and government regulations were issued regarding the standards of food hygiene, sanitation, public safety, and the practice of midwifery. Yuan’s support for modern medicine even led to the first attempt to abolish Chinese medicine in 1914. When the government promulgated “Regulations on the Prevention of Infectious Diseases” and the “Regulations on Medical and Pharmaceutical Examinations” in 1916, it took on the modern responsibility of fighting epidemics and standardizing medical practice. Given the chaotic and weak government of the early Republic, these regulations were not effectively enforced, but they set up the legal obligations of the government to public health.

The call for the state to take responsibility of national health grew when medical scientists and intellectuals actively voiced their opinions to shape government policies from their professional positions in modern public health institutions,
such as the North Manchurian Plague Prevention Service, and the Central Epidemic Prevention Bureau. In the decades of the 1920s–1940s, scientific and medical professionals played a crucial role in the building of health institutions of a modern state. As science held unique significance for Chinese modernization, the promotion of Western medicine as the scientific medicine made it the choice for Chinese medical modernization, while Chinese medicine was excluded from the construction of a modern health system under the Nationalist government. The Nationalist elite with Western medical training formed the key force of health modernizers who worked with the League of Nations Health Organization (LNHO) and the Rockefeller Foundation in building an institutional structure of a centralized health administration based on modern medicine. In an attempt to make a clean slate for health modernization, the Nationalist medical elite decided to abolish Chinese medicine in 1929, only to be challenged by the unity of the Chinese medical world. The “old-style” Chinese medicine men were quite modern in their fight for Chinese medicine as they organized popular protests and political lobbying and gave the medicine a new name, “national medicine 国医.” In the end, the Nationalist medical elite managed to exclude Chinese medicine from playing a role in the construction of a modern health system, despite their failure to abolish it. Working with the LNHO, the Nationalist health leaders decided on state medicine as the model for China, but they diverged in interpreting the meaning of state medicine when designing its delivery. While those who were doing the fieldwork of public health advocated health service to all people, the health bureaucrats concentrated on the institution building of a central health administration. The primary emphasis on institutional building could be attributed to factors such as bureaucratic convenience, limited manpower to provide medical and health service, and the lack of political commitment to a national health service. The Nationalist health modernizers, nevertheless, created an impressive modern national health administration system with research and training. Using health stations as pilot programs to conduct studies of sanitation and health, they gathered data of vital statistics and health, which lent the modern state the authority to exercise regulations of the health behavior of the public in the name of modernity and progress. The Nationalist health system had segments of central and local health institutions, where the central institutions were systematically developed with international assistance, and the local institutions developed under the supervision of provincial governments without uniformity of standards. The Nationalist health modernizers were least successful in rural health construction, even though they had laid out detailed plans of a xian (county) centered rural health system. According to their plan, each xiancheng (county town) would have a center hospital to perform the simple health work of epidemic prevention, basic medical service, midwifery, health education and anti-opium smoking. The health work of a county center hospital would extend into villages with each rural district having a health station, and each village town a sub-station, and each village a health worker. These beautiful ideas of a three-tiered rural health structure, however, remained largely on paper under the Nationalist rule but were put into practice by the CCP government.