10 Barefoot Doctors and Social Medicine in China

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In the sociopolitical discourse of twentieth-century China, the core topics of medicine and health as a crucial part of nation-building were reflected in either the original blueprint design or through work principles such as "state medicine for all" and "serve the workers, peasants, and soldiers." "Medicine and healthcare" and "social medicine" were essentially interchangeable terms during this process, as both highlighted social relations of health and illness and pursued social equity. Since 1949, the Chinese Communist government further justified its political legitimacy by criticizing the political and medical incapacity of the preceding Nationalist government and it delivered medicine and health services in alignment with social restructuring brought about by continuous political campaigns. It mainly focused on addressing sociopolitical and economic institutional determinants of health, disease, and the delivery of medical cares.

During this process, China's social medicine had been predominantly shaped by changing sociopolitics, including political ideologies, institutional structures, governance capacity, and resources distribution. Further, because of ongoing epidemiological transitions, the shift of medical official discourse, and the change of the economic developmental model, social medicine in China demonstrated its specific characteristics. The barefoot-doctor scheme in rural areas, which was first promoted during the Cultural Revolution of 1966–76 was a synonym for China's social medicine policy. This program aimed to provide a low-cost solution to the huge population's medical and health provision with limited medical resources and had attracted social and medical attention inside and outside China from the outset.

This chapter aims to show the unique path of social medicine in China based on analysis of the history of the barefoot-doctor program over the past seven decades. It investigates how barefoot doctors transformed social medicine in rural China and how the government clarified and addressed the contradiction between ideological equity and structural inequity in social medicine. It discusses how epidemiologic transitions both facilitated and challenged the barefoot doctor program and how they impacted on social medicine. This chapter

further investigates how the evolution of community medicine impacted on social medicine due to the changing roles of barefoot doctors. It discusses how the barefoot doctors echoed the themes of social medicine in developing and developed countries, where its inspirations and legacies were left. By revisiting the state's role in the barefoot-doctor program, it is possible to contribute to a new understanding of the global history of social medicine in the twentieth century and beyond when sociopolitics, disease, and medical technologies have shaped both the social determinants of health and the relationship between medicine and social equity.

Barefoot Doctors: Transformation of Social Medicine in Rural China

In the 1930s, the governmental and non-governmental blueprints and practices of the rural medical and the health system aimed to serve peasants who counted for 85 percent of China's total population and train sufficient medical staff for rural areas in the state medicine framework.[1] However, this structural design did not change the social relations of health and illness as the sociopolitical system remained intact. After 1949, restructuring the medical and health system and the sociopolitical structures developed concurrently. This was evidenced by the establishment of healthcare stations at agricultural co-ops, which were established following the progress of the Agricultural Collectivization campaign of 1953–6. Healthcare workers, with ten to fifteen days of training, assisted the Health Department to publicize medical and health policies and provided basic services to peasants, such as bandaging wounds and first aid. During the Great Leap Forward of 1958–62, the People's Commune established a relatively complete medical and health system, in which production brigades temporarily had their own healthcare workers in some areas. In the suburban counties of the Shanghai Municipality, villagers usually called these healthcare workers "barefoot doctors" because they labored barefoot in rice paddy fields but were ready to do medical and health work as needed.[2]

On September 14, 1968, the *People's Daily*, an organ of the Central Committee of the Chinese Communist Party, published an investigative report about the work of barefoot doctors in Jiangzhen Commune, Chuansha

[1] AnElissa Lucas, *Chinese Medical Modernization: Comparative Policy Continuities, 1930s–1980s* (New York, NY: Praeger, 1982).

[2] He Gongxin, "Pinxiazhongnong shengzan zhege chijiao yisheng: ji jinshanxian youxiu weishengyuan Hu Lianhua" (Poor and Lower-Middle Peasants Applaud This Barefoot Doctor: The Story of Excellent Health Care Worker Hu Lianhua), *Xinmin wanbao* (*Xinmin Evening News*), September 5, 1965.

County, Shanghai Municipality.[3] Soon the barefoot doctor program was promoted nationwide, together with cooperative medical services during the Cultural Revolution. They formed the lowest level of a three-tiered state medical system that comprised the county, people's commune, and production brigade levels. Each production brigade implemented "cooperative medical services" to cover the costs of establishing these medical service stations, which would be presided over by barefoot doctors. By the collapse of the People's Commune system in 1983, 87 percent of the production brigades had cooperative medical stations presided over by barefoot doctors.[4] As a new medical and healthcare scheme, barefoot doctors significantly changed the delivery method of healthcare and transformed social medicine in rural China. Indeed, the Cultural Revolution restructured the rural medical world and altered the social relations of medicine and health.

In terms of knowledge transmission, the healers that made up the Chinese rural medical world prior to 1949 followed longstanding family-based or apprenticeship-based traditions and in both cases, medical knowledge and healing experiences were not readily shared with others. However, the new selection criteria for barefoot doctors emphasized age, gender, and educational background. This ensured that barefoot doctors came from ordinary rural families rather than village elites as with traditional practitioners. The scheme therefore quickly increased the number of people with medical knowledge in the villages. Gender was particularly significant as this feature set barefoot doctors apart from existing professional Chinese medicine doctors and folk healers.[5]

The large-scale medical publications also facilitated knowledge dissemination. This program needed a unified body of knowledge to promote a health program nationwide at the quickest possible pace. With the advent of the barefoot doctors, all of whom were at least partly literate, textbooks such as *Textbooks for Barefoot Doctors* that specifically targeted them were soon widespread. There were two series of barefoot doctor textbooks during the 1970s: one for southern China and another for northern China because of the variations in climatic and geographic conditions, which in turn had a bearing on disease.[6]

[3] "Cong 'chijiao yisheng' de chengzhang kan yixue jiaoyu geming de fangxiang: shanghaishi de diaocha baogao" (Fostering a Revolution in Medical Education through the Growth of the Barefoot Doctors: An Investigative Report from Shanghai Municipality), *Renmin ribao* (*The People's Daily*), September 14, 1968.

[4] Zhongguo weisheng nianjian bianzhuan weiyuanhui (Editorial Board of China Health Yearbook) (ed.), *Zhongguo weisheng nianjian 1984 (China Health Yearbook 1984)* (Beijing: Renmin weisheng chubanshe, 1985), 23.

[5] Charlotte Furth, *A Flourishing Yin: Gender in China's Medical History, 960–1665* (Berkeley: University of California Press, 1999).

[6] Xiaoping Fang, *Barefoot Doctors and Western Medicine in China* (Rochester, NY: University of Rochester Press, 2012), 58–60.

Barefoot doctors also demonstrated a unique trajectory of professional development. In the 1970s, barefoot doctors were mainly responsible for the medical and public health work of their own production brigades and they did not intervene in each other's geographical domains, which minimized competition between colleagues in neighboring villages. Inside the medical stations, the non-profit orientation of cooperative medical services and salary-calculation methods also minimized conflicts among the barefoot doctors in terms of personal income and professional prestige during the 1970s. All of these contributed to the formation of their sense of group identity.

For villagers, after the advent of the barefoot-doctor program, access to pharmaceuticals significantly changed. The main pharmaceuticals consumed in rural China had been herbal medicines that were primarily gathered from the fields. After 1968, the cooperative medical stations and kits extended the pharmaceutical sales network throughout rural China at an unprecedented pace. Western pharmaceuticals – mainly antibiotics and vaccines – began to enter the countryside.[7] Meanwhile, the consumption of Chinese herbal medicines and folk medical practices were promoted to meet the demands of the national health program in view of its low economic cost. Western medicines and Chinese herbal medicines circulated simultaneously in Chinese villages for the first time in the history of medicine in China. Villagers could access pharmaceuticals much more easily than before, while self-medication became more common among villagers.

In the meantime, the proximity of the personal relationships in these tightly knit communities made a positive impact on doctor–patient power relations. The villagers felt quite relaxed about communicating with "one of their own" about their diseases.[8] As for barefoot doctors, they primarily treated commune members in their own production brigades under the policy of "medical regionalization" – they basically treated their fellow villagers. As they gained experience, the barefoot doctors became increasingly familiar with the health problems of the local people.

All in all, the significance of the barefoot doctor program for social medicine lay in that it created a new, relatively equal relations of medicine and health through the changes in knowledge transmission, professional identity, pharmaceutical consumption, and relationships between doctors and patients following the sociopolitical restructuring of the Cultural Revolution. As the program covered basic medical service, public health, preventive medicine, and environmental hygiene, it facilitated preliminary but comprehensive health delivery to villagers and contributed to the improvement of basic health indicators.

[7] Liu Xiaoxing, "Change and Continuity of Yi Medical Culture in Southwest China," PhD, University of Illinois at Urbana-Champaign, 1998, 17.
[8] Fang, *Barefoot Doctors*, 162–6.

Ideological Equity, Structural Inequity: Legitimacy and Practice of Social Medicine

The transformation of social medicine brought about by barefoot doctors occurred in broader, complicated sociopolitical contexts which shaped social determinants of health and the relationship between medicine and social equity. As the Communist Party claimed, the People's Republic of China was a socialist country ruled by a people's democratic dictatorship under the leadership of the working class, based on the union of workers, peasants, and soldiers.[9] The commitment of the Communist Party reflected in the medicine and health work principles proposed in 1950, including "serve workers, peasants and soldiers" and "combine health work with a mass campaign."[10] The political discourse of the Cultural Revolution claimed, barefoot doctors, and cooperative medical services were "great inventions made by poor and lower-middle peasants to combat diseases by depending on collective forces" because they "solved the problems of poor and lower-middle peasants seeking medicine and health care."[11] In this sense, barefoot doctors justified the revolutionary commitment to the social equity of medicine and health.

The political legitimacy of barefoot doctors was buttressed by top-down administrative and medical systems composed of the county, people's commune, and production brigade in the new central and local relationship promoted by the Cultural Revolution. Barefoot doctors and cooperative medical stations were operated by production brigades. Medical station funds were collected from brigades, teams, and commune member individuals.[12] However, the barefoot doctor program was implemented nationwide in the context of a Chinese urban–rural dual sociopolitical structure from the 1950s, in which structural inequity in terms of medical resource allocation across urban–rural areas and social classes was predominant. In all, the governmental expenditure on medicine and health did not correspond to its ideological claim. Throughout Mao's era from 1949 to 1976, health expenditure accounted for less than 1.39

[9] Qian Xinzhong, "Woguo weisheng shiye shengli fazhan de huigu" (Review of Great Development in Medicine and Health of Our Nation), in Zhongguo weisheng nianjian bianzhuan weiyuanhui (Editorial Board of China Health Yearbook) (ed.), *Zhongguo weisheng nianjian 1983 (China Health Yearbook 1983)* (Beijing: Renmin weisheng chubanshe, 1983), 10.

[10] Qian, "Woguo weisheng shiye shengli fazhan de huigu," 11–12.

[11] "Shenshou pinxia zhongnong huanying de hezuo yiliao" (Cooperative Medical Service Warmly Welcomed by Poor and Lower-Middle Peasants), *Renmin ribao* (*The People's Daily*), December 5, 1968.

[12] Fang Xiaoping, "Zhongguo nongcun de chijiao yisheng yu hezuo yiliao zhidu: zhejiangsheng fuyangxian de gean yanjiu" (Barefoot Doctors and Cooperative Medical Services in Rural China: A Case Study of Fuyang County, Zhejiang Province), *Ershiyi shiji* (*Twenty-First Century*) 5 (2003): 90.

percent of fiscal expenditure on average.[13] Furthermore, a huge gap existed between urban and rural areas. For example, clinic beds and professional medical staff per 1,000 urban residents in 1965 were 7.4 and 3.7 times those for rural residents, respectively.[14] In this year, the rural population was 4.6 times that of the urban population.[15]

The other closely associated issue is the distribution of resources across different sociopolitical groups. In 1951 and 1952, the government implemented free medical services and labor medical insurance. The former applied to staff of the Party and governmental agencies, while the latter covered employees in railway, post and communication, shipping, and industrial mining enterprises. In addition, the Chinese government had been implementing a healthcare scheme for senior Party officials.[16] These schemes resulted in unrestrained waste of medical and health resources.[17]

However, the peasants, who comprised the majority of the Chinese population, had no such free medical provision. The structural inequity of medicine and health was not challenged until Mao's criticism of the Ministry of Health that it was "only able to serve 15 percent of the total population, and this 15 percent is made up mostly of the privileged" and he called on them to "stress rural areas in medical and health work!" Mao's statement later became known as the June 26 Directive for medicine and health work.[18] However, the structural inequity of medicine and health based on "inequality of treatment based on social distinction" was maintained intact and continued until the late 1990s.[19] Even though the governments at each level were committed to implementing the "June 26 Directive," the gap between urban and rural areas and across sociopolitical groups continued to great extent.

In the meantime, the government addressed the discrepancies between ideological and structural inequities through administrative interference, the redistribution and reutilization of medical resources, and disciplinary schemes. Administrative interference included the reduction of pharmaceutical prices

[13] Zhongguo weisheng nianjian bianzhuan weiyuanhui (Editorial Board of China Health Yearbook) (ed.), *Zhongguo weisheng nianjian 1985 (China Health Yearbook 1985)* (Beijing: Renmin weisheng chubanshe, 1986), 59.

[14] Qian, "Woguo weisheng shiye shengli fazhan de huigu," 54; Zhongguo weisheng nianjian bianzhuan weiyuanhui (ed.), *Zhongguo weisheng nianjian 1984*, 18.

[15] Zhongguo shehui kexueyuan renkou yanjiu zhongxin (Demographic Research Centre of the China Academy of Social Sciences), *Zhongguo renkou nianjian 1985 (China Population Yearbook 1985)* (Beijing: Zhongguo shehui kexue chubanshe, 1986), 811.

[16] Gao Hua, *Lishi biji (Historical Notes)* (Hong Kong: Oxford University Press, 2019), vol. 2, 85.

[17] Huang Shuze and Lin Shixiao (eds.), *Dangdai zhongguo de weisheng shiye (Health Development in Contemporary China)* (Beijing: Zhongguo shehui kexue chubanshe, 1986), vol. 2, 53–4.

[18] Zhu Chao, *Xin zhongguo yixue jiaoyushi (The History of Medical Education in New China)* (Beijing: Beijing yike daxue, Zhongguo xiehe yike daxue lianhe chubanshe, 1990), 112–20.

[19] Fei-ling Wang, *Organizing through Division and Exclusion: China's Hukou System* (Stanford, CA: Stanford University Press, 2005).

and assigning urban mobile medical teams to rural areas. As discussed earlier, the popularization of barefoot doctors was very significant for villagers' access to pharmaceuticals. However, network, prices, and quantity were all crucial factors. For example, villagers would have to work for three years to buy a single bottle of tetracycline or Terramycin.[20] As such, the reduction of prices was crucial for villagers. By 1971, medicinal retail prices were only one-fifth of what they had been in 1949.[21] Affordable pharmaceuticals contributed to the equity of access to medical and health service when limited medical resources were otherwise unfairly distributed.

In the meantime, the Chinese government organized urban mobile medical service teams for rural areas and to train rural health workers in order to improve the rural medical situation in response to Mao's criticism of the Ministry of Health.[22] Medical graduates were assigned to rural areas and urban doctors were "sent down" to rural areas (either temporarily or permanently), following Mao's instructions.[23] Urban medical staff and graduates played important roles in training barefoot doctors and delivering medical and health services to rural areas.[24]

To address the shortage of medical resources, Chinese herbal medicine and acupuncture as low-cost methods were promoted nationwide, as reflected by the slogan, "one silver needle and a bunch of herbs."[25] The Chinese herbal medicine movement was of tremendous significance as it indicated that the state, for the first time, officially legitimated the folk medicine consumed by vast rural populations prior to the advent of biomedicine.[26] The inclusion of Chinese herbal medicine into the barefoot-doctor program also enhanced the symbolic relationship between urban doctors and rural medical practitioners in terms of political connections and the transmission of medical knowledge,[27] which justified the legitimacy of this nationwide scheme that aimed to bring social equity into the revolutionary campaign.

[20] Wang Wenzhi (ed.), *Fuyang xianzhi (Fuyang County Gazetteer)* (Hangzhou: Zhejiang renmin chubanshe, 1993), 218.
[21] Fang, *Barefoot Doctors*, 78.
[22] Mao Zedong, *Jianguo yilai Mao Zedong wengao (Mao Zedong Manuscript since the Founding of the People's Republic of China)* (Beijing: Zhongyang wenxian chubanshe, 1992), vol. 11, 318–19.
[23] Xiaoping Fang, "From Union Clinics to Barefoot Doctors: Village Healers, Medical Pluralism, and State Medicine in Chinese Village," *Journal of Modern Chinese History* 2, no. 2 (2008): 234–5.
[24] Miriam Gross, "Between Party, People, and Profession: The Many Faces of the 'Doctor' during the Cultural Revolution," *Medical History* 62, no. 3 (2018): 333–59.
[25] World Bank, *China: Long-Term Issues and Options in the Health Transition* (Washington, DC: World Bank, 1992), 18.
[26] Sean Hsiang-lin Lei, *Neither Donkey nor Horse: Medicine in the Struggle over China's Modernity* (Chicago, IL: The University of Chicago Press, 2012), 257.
[27] Gross, "Between Party, People, and Profession," 333.

In the meantime, the government adopted disciplinary actions to promote the barefoot-doctor program. During the Cultural Revolution, barefoot doctors were hailed as "the great revolution of the medical and health front." The government extended criticism and prohibition policies to medical practitioners belonging to "class enemies" and it also cracked down on "illegal healers" who may have continued practicing medicine by labeling them negatively as "superstitious healers." These disciplinary actions marginalized competitors of the barefoot doctors and provided them with a much bigger space in which to practice medicine and develop their professional authority in villages.

Among these efforts, pharmaceutical price reduction, the dispatch of mobile medical teams to rural areas, and the legitimization of Chinese herbal medicine all belonged to the redistribution and reutilization of medical resources without the radical changes of the extant distribution scheme. The disciplinary scheme was a politically coercive measure aimed at strengthening the restructured sociopolitical relations of health and medicine brought about by barefoot doctors. However, these efforts that addressed the discrepancies between ideological equity and structural inequity did not solve the critical issue of limited funding, which posed severe practical problems for the daily operation of the cooperative medical service. By 1973, only four years after the cooperative medical services had been implemented nationwide, the percentage of production brigades implementing them had dropped to the lowest level in the history of the program. After adjustment and improvement, the cooperative medical service reached its peak in the historical record in 1976 and then declined soon throughout China as a whole. While cooperative medical services that offered a partial waiver of medical and pharmaceuticals fees fluctuated, barefoot doctors and medical stations maintained different degrees of stability, which retained the key features of social medicine in rural China.

Notwithstanding, the end of the Cultural Revolution in 1976 and the initiation of the Reform and Opening-Up in 1978 redefined the official discourse of social medicine. In answer to the criticisms of the Cultural Revolution during the time, the Ministry of Health called for "a correct understanding of major medicine and health-work policies since 1949 that had been distorted during the Cultural Revolution." The minister criticized the practice of sending urban medical staff to rural areas. He pointed that it was wrong to believe that only a constant reduction of medical service rates and pharmaceutical prices could show the superiority of socialism.[28] In this sense, the criticism refuted the legitimacy of the redistribution of medical resources based on the restructuring of sociopolitical relations of medicine and medicine.

Following the reassessment of medicine and health strategies and policies in rural China in Mao's era, the key work of health sectors was now required

[28] Qian, "Woguo weisheng shiye shengli fazhan de huigu," 13–14.

to shift toward "medical and pharmaceutical modernization," which was different from the low-cost solution built around easily available indigenous medicine promoted during the Cultural Revolution. The new government was instructed to reform and strengthen around one third of county medicine and health networks from 1979 to 1985, such as training medical talents with modern science and technology and motivating barefoot doctors to improve their medical proficiency.[29] In October 1979, the State Council proposed holding examinations to certify the barefoot doctors.[30]

Through the new medical certification system, the state effectively changed the definition of medical legitimacy by prioritizing medical proficiency over medical equity. Simultaneously, barefoot doctors lost their core institutional context with the end of the People's Commune system in 1983. On January 24, 1985, the Ministry of Health officially announced that the term "barefoot doctor" would no longer be used in China.[31] Barefoot doctors who passed medical examinations and continued practicing medicine in villages were renamed "village doctors." Thus, the new sociopolitical and economic reforms brought about more professionalized medical practitioners and more commercialized services, which shaped the features of social medicine in rural China and impacted on the delivery of medical and health services.

Epidemiological Transition: Another Determinant of Social Medicine

From the "Newly Emerged Thing" of the Cultural Revolution in 1968 to the renaming of "village doctors" in 1985, the history of barefoot doctors shows how the Chinese Communist government defined and practiced social medicine according to political ideologies, developmental strategies, socioeconomic system, resource distribution schemes, operational procedures, and disciplinary mechanisms. But, the disease was also a determinant factor that shaped social medicine.

By 1949, rural China was still afflicted by acute and chronic infectious diseases, parasitic diseases, and endemic diseases. For example, plague, cholera, and smallpox were three major acute infectious diseases. Among chronic infectious diseases, the incidence rate of tuberculous was 4 percent, while the number of leprosy patients reached 0.5 million.[32] In terms of parasitic diseases, schistosomiasis affected an estimated 10 million patients in twelve

[29] Qian, "Woguo weisheng shiye shengli fazhan de huigu," 12–14.
[30] Fang, *Barefoot Doctors*, 166. [31] Ibid.
[32] Huang and Lin (eds.), *Dangdai zhongguo de weisheng shiye*, vol. 1, 1–2.

provinces and 324 counties in southern China.[33] Hookworms existed in almost all provinces. In the fifteen provinces of southern China, the infection rate even reached 80–90 percent of the population.[34] Each area had its endemic diseases. Schistosomiasis and Keshan disease (an endemic cardiomyopathy) were the most typical endemic diseases of southern and northern China, respectively.[35]

From the early 1950s, prevention and treatment of acute infectious diseases, parasitic, and endemic diseases were mainly focused on two aspects.[36] First, the Chinese government launched continuous public healthcare and epidemic prevention campaigns, including the Patriotic Health Campaigns (i.e., ceremonial campaigns), ordinary schemes for eradicating endemic parasitic, and infectious diseases (i.e., regular campaigns), and emergency responses toward the pandemics like plague and cholera.[37] Second, the Chinese government committed to improving pharmaceutical and vaccine technology. By 1965, six categories of Active Pharmaceutical Ingredients (antibacterial, sulfonamide, antipyretic, vitamin, anti-tuberculosis, endemic medicine) were able to meet the demands of domestic prevention and treatment work and some medicines were exported.[38] In terms of vaccines, by the 1960s, various vaccines produced by biological product institutes guaranteed the implementation of immunization planning against major infectious diseases except epidemic meningitis and measles.[39]

During this process, the sociopolitical scheme played a crucial role in mass campaigns and technological improvements. This developmental path continued into the barefoot-doctor program in the late 1960s. The significance of the barefoot-doctor scheme lay in that it radically increased the number of healthcare workers who could actively participate in epidemic prevention in this nationwide program because the work did not require high medical proficiency.

The further progress of pharmaceuticals and vaccines, together with the epidemiological features of infectious diseases, facilitated epidemic prevention and treatment. Among them, the vaccine for measles and the epidemiological feature of epidemic meningitis were especially significant because the

[33] Qian Xinzhong, "Chengsheng qianjin, jiasu xiaomie wuda jishengchongbing" (March Forward Triumphantly, Eradicate Five Major Parasitic Diseases), *Renmin baojian* (People's Health Care) 5 (1959): 395.
[34] Zhonghua yixuehui (Chinese Medical Association), "Xinzhongguo gouchongbing diaocha yanjiu de zongshu" (Summary of the Hookworm Survey in New China), *Renmin baojian* (People's Health Care) 1 (1959): 1.
[35] Huang and Lin (eds.), *Dangdai zhongguo de weisheng shiye*, vol. 1, 1–2.
[36] Huang and Lin (eds.), *Dangdai zhongguo de weisheng shiye*, vol. 1, 6.
[37] Xiaoping Fang, *China and the Cholera Pandemic: Restructuring Society under Mao* (Pittsburgh, PA: University of Pittsburgh Press, 2021), 228–9.
[38] Huang and Lin (eds.), *Dangdai zhongguo de weisheng shiye*, vol. 1, 13.
[39] Huang and Lin (eds.), *Dangdai zhongguo de weisheng shiye*, vol. 1, 8–10.

mortality rates of measles and epidemic meningitis were the highest of all the infectious diseases affecting rural China throughout the 1950s and 1960s.[40] In China as a whole, the specific death rates from infectious disease kept dropping from 1957. By 1980, this figure for rural areas had dropped to 20 per 100,000 and was maintained at this level until 1984.[41] All in all, the epidemic control model based on mass campaigns and technological progress could effectively address the issue of the infectious diseases that afflicted the predominant majority of populations in rural China. This method guaranteed basic access to medicine and health and facilitated the implementation of social medicine when China's medical system and resource distribution suffered serious structural inequity.

However, infectious diseases were no longer the main cause of threats for rural populations by the mid 1970s. The percentage of infectious diseases of all causes of death in rural areas dropped from 3.49 percent in 1975 to 2.76 percent in 1980, though they were much higher than those of urban areas in the same year. Infectious disease ranked between eighth and ninth among causes of death from 1975 to 1983. The first five causes of death in both rural and urban areas were heart disease, malignant tumors, cerebrovascular disease, respiratory system disease, and digestive system disease.[42] That means that China had completed the epidemiological transition from infectious to chronic diseases. And there was not much difference between urban and rural areas. For barefoot doctors, their high profile was closely associated with improvement in basic indicators under the infectious disease model from the 1950s to the 1970s. However, the advent of the chronic disease model challenged the barefoot doctors' mediocre medical proficiency and the country's limited medical resources. It also subsequently impacted on social medicine in a commercialized market during the following two decades.

Barefoot Doctors, the Evolution of Community Medicine, and Social Medicine

In all, by the late 1970s and early 1980s, barefoot doctors suffered legitimacy and practical crises brought about by the renaming of village doctors and epidemiological transition. The development of community medicine, due to the changing roles of barefoot doctors, shows evolutionary features of social medicine in rural China. Up to the late 1940s, community medicine did not exist because of the individual, fragmented, and independent nature of professional

[40] Fang, *Barefoot Doctors*, 80.
[41] Zhongguo weisheng nianjian bianzhuan weiyuanhui (ed.), *Zhongguo weisheng nianjian 1985*, 55–6.
[42] Zhongguo weisheng nianjian bianzhuan weiyuanhui (ed.), *Zhongguo weisheng nianjian 1985*, 55–6.

medical practice and the vague distinction between medical practice and the agricultural production of medicine in rural areas. The concurrent downward extension of sociopolitical and medical systems gradually facilitated the rise of community medicine based on one specific administrative region. Because of the nationwide promotion of barefoot doctors in 1969 and 1970, a medical community, which geographically coincided with the People's Commune, formally emerged. Within a medical community, barefoot doctors provided preliminary medical and health services as discussed earlier. Outside the community, as medical staff at the lowest level of the three-tier medical system, with their counterparts at the commune and county levels, the barefoot doctors finally accomplished and enhanced the technical stratification and cooperation of the medical system through a patient referral system. As a result, villagers' encounters with doctors increased and they began to receive treatment outside their home villages and communes at county hospitals. Therefore, the emergence of community medicine embedded in an extant sociopolitical structure was significant for social medicine.

It was more significant that barefoot doctors further changed the structure of community medicine due to their dual role of healthcare workers and physicians throughout the 1970s. Particularly because they fulfilled healing roles, barefoot doctors had similar medical expertise to commune clinic doctors. Furthermore, the popularization of brigade medical stations, which had the authority to refer patients to the top of the medical hierarchy, made villagers bypass the commune clinics altogether. Barefoot doctors in practice thus further embarrassed the commune clinics, which now suffered mediocre proficiency, a shortage of the necessary equipment, supplies, and personnel to provide the medical services designated to them by the system.[43] The decline of the commune clinics made the rural medical network take on a dumbbell shape: the middle part (the commune clinics) shrank, while the top and bottom (the county hospitals and the brigade medical stations) became increasingly important. Therefore, barefoot doctors started to take over medical practices in the local community, that had previously been the domain of commune clinics. The dominance of barefoot doctors in community medicine provided villagers with timely and convenient access to basic medical services.

By the late 1970s and early 1980s, the epidemiological transition and the renaming of village doctors pushed the remaining barefoot doctors to improve their medical proficiency in response to legitimacy and practical crises. Barefoot doctors' efforts facilitated their professional development and further posed more intense challenges to township clinics (former commune clinics) because they had accumulated even more medical expertise and had grown yet more familiar with their patients in the villages than had the township clinic

[43] Fang, *Barefoot Doctors*, 139–44.

doctors. Therefore, the dumbbell-shaped structure has continued to characterize community medicine in rural areas since the early 1980s. However, this structure brought about a few serious problems in the new era. The most immediate problem was the overuse of Western pharmaceuticals because of village doctors' prescription preference for profit and rural residents' healthcare seeking behavior.[44] Another critical issue is that each level of the three-tier medical system was increasingly dysfunctional. The basic aim of this hierarchical structure is to divide patients among the three service points. However, as discussed above, there were no noticeable medical advantages to township clinics in comparison with the barefoot doctors' medical stations. Furthermore, barefoot doctors did not have any incentive to play the dual role of public health centers – service provider and "gatekeeper" of the whole system.

All of these features further resulted in unique healthcare-seeking behavior because there was "an elevated trust in high-level hospitals (with corresponding low trust in clinics and their staff) and the Chinese patient's high degree of autonomy."[45] When the medical market was highly commercialized in China in the 1980s and 1990s, all the costs incurred by the overuse of pharmaceuticals and hospital services were passed on to patients. Together with growing income gaps among social classes and regional differences, the full medical marketization in the late 1990s thus worsened accessibility and affordability of medicine and healthcare for rural populations. This change indicated the collapse of the traditional structure of community medicine that seriously impacted on the social equity of access to medical and health services.

Given the structural issue of community medicine in rural China in the last two decades of the twentieth century, the Chinese government conducted a readjustment – the "integrated management of rural health" – from 2008 to 2010. Each former township hospital was converted into a community health service center. Extant village clinics were abolished, while county governments established new health service stations, which were located according to the "20-minute service circle." Village doctors were incorporated into these health service stations. These health service centers and stations provided "six-in-one" services to villagers, which encompassed prevention, treatment, promotion of health and well-being, rehabilitation, health education, and family-planning advice. In all, the community health service mainly focused on public health work and minor illness treatments, which largely include medical examinations, home follow-ups, and health archives, and so on. To curb the overuse of pharmaceuticals, the Chinese government designed catalogues

[44] Liu Yuanli, "China's Public Health-Care System: Facing the Challenges," *Bulletin of the World Health Organization* 82, no. 7 (July 2004): 536.

[45] Michele Renshaw, "The Evolution of the Hospital in Twentieth-Century China," in Bridie Andrews and Mary Brown Bullock (eds.), *Medical Transitions in Twentieth-century China* (Bloomington, IN: Indiana University Press, 2014), 332.

for medical units at each level. Doctors at the community health service centers could only prescribe the pharmaceuticals listed by the catalogues. For these pharmaceuticals, the health service centers implemented zero-profit sales.

Through these measures, the government aimed to fulfil the integrated management of rural health in China in terms of medical services, public health, pharmaceuticals, personnel, and finance. Within this new structure, the role of barefoot doctors (now village doctors) was redefined and public health was re-emphasized. To some extent, the structures and function of this system were similar to those government and non-government experimental programs in the 1930s. This means that the ultimate goal of medicine and health in rural China continued across the new millennium – to provide basic medical and health services to the vast majority of the Chinese population and to guarantee accessibility and affordability of medical and health services, which has been the essence of social medicine in China's sociopolitical contexts.

Global Reception and Implications

The key features of social medicine in China represented by the barefoot-doctor program was in alignment with sociopolitical and medical systems. However, as the Chinese approach to healthcare delivery and provision from 1949, this method echoed the pursuit of accessibility, affordability, and equity of public health and medical care in both developing and developed countries. The former suffered the serious shortage of medical resources, while the latter encountered the issue of health distribution under the dominance of biomedicine. Thus, the Chinese government quickly utilized health and medicine as special international politics and diplomacy tactics in the geopolitical context of the Cold War from the 1960s.[46]

As early as 1963, China dispatched its first medical aid team to a foreign country as part of the Asian, African, and Latin American people against "colonialism, imperialism and hegemonism." After the initiation of the barefoot-doctor program, the Chinese government usually would include a model barefoot doctor in its "friendship delegations" to African countries. Together with other health collaborations, the barefoot-doctor model quickly got noticed in Asia, Africa, and Latin America.[47]

[46] Li Anshan, "Zhongguo yuanwai yiliaodui de lishi, guimo jiqi yingxiang" (The History, Scale, and Impact of Chinese Medical Aid Teams in Foreign Countries), *Waijiao pinglun (Foreign Affairs Review)*, 1 (2009): 25–45.

[47] Xun Zhou, "From China's 'Barefoot Doctor' to Alma Ata: The Primary Health Care Movement in the Long 1970s," in Priscilla Roberts and Odd Arne Westad (eds.), *China, Hong Kong, and the Long 1970s: Global Perspectives* (London: Palgrave Macmillan), 144–45.

The Chinese medical model based on the barefoot-doctor program also caught the World Health Organization's (WHO) attention as the Chinese approach fitted its grand goal of meeting basic health needs in developing countries. In 1976, the World Health Assembly released the "Health for All by the Year 2000" Declaration as a moral imperative and a commitment to achieving universality and equity. The declaration highlighted three key ideas – appropriate technology (criticism of the negative role of disease-oriented technology), opposition to medical elitism (disapproval of the overspecialization of health personnel in developing countries), and health as a tool for socioeconomic development.[48] In September 1978, the WHO publicized the Chinese barefoot-doctor system as a model of primary healthcare for developing countries in Alma-Ata, USSR.[49]

Though the barefoot-doctor program officially disintegrated in China in 1985, it was still influential in Asia, Africa, and Latin America. For example, as Anne-Emanuelle Birn and Raúl Necochea López noted, in Peru, barefoot doctors caught health policy-makers' attention as an inexpensive way of delivering primary care to rural areas when Chinese bilateral cooperation in health was blossoming through formal diplomatic ties and the Instituto Cultural Peruano-Chino.[50]

In the meantime, the barefoot-doctors scheme facilitated medical exchanges between China and the West and played a specific role of non-governmental diplomacy in the geopolitical context of the Cold War. The first USA medical delegation visited China in September 1971, prior to President Richard Nixon's official visit to China in February 1972.[51] From then on, many American medical delegations visited China. These American medical physicians introduced China's medical and health system to American society, including the implementation of barefoot doctors in rural areas.[52] Unlike the controversial acupuncture anesthesia, the barefoot doctors concurred in the ongoing People's Free Medical Clinics (PFMC) of the Black Panther Party due to its health

[48] Marcos Cueto, Theodore M. Brown, and Elizabeth Fee, *The World Health Organization: A History* (Cambridge: Cambridge University Press, 2019), 174–8.

[49] The World Health Organization and the United Nations Children's Fund, "Primary Health Care: A Joint Report by the Director-General of the World Health Organization and the Executive Director of the United Nations Children's Fund," International Conference on Primary Health Care, Alma-Ata, USSR, September 6–12, 1978.

[50] Anne-Emanuelle Birn and Raúl Necochea López, "Epilogue. A Lingering Cold (War)? Reflections for the Present and an Agenda for Further Research," in Anne-Emanuelle Birn and Raúl Necochea López (eds.), *Peripheral Nerve: Health and Medicine in Cold War Latin America* (Durham, NC: Duke University Press, 2020), 277.

[51] Victor W. Sidel and Ruth Sidel, "Barefoot in China, the Bronx, and Beyond," in Anne-Emanuelle Birn and Theodore M. Brown (eds.), *Comrades in Health: U.S. Health Internationalists, Abroad and at Home* (New Brunswick, NJ: Rutgers University Press, 2013), 121.

[52] Victor W. Sidel and Ruth Sidel, *Serve the People: Observations on Medicine in the People's Republic of China* (Boston: Beacon Press, 1973).

activism, which was an outgrowth of contemporary currents and of its own organizational evolution.[53]

The barefoot-doctor program also influenced some medical professionals and organizations. For example, in 1978, the Black Acupuncture Advisory Association of North America dispatched barefoot doctor acupuncture cadres into the South Bronx in an effort to heal and resuscitate improvised and minority neighborhoods.[54] Barefoot doctors as alternative modes of health provision alerted a few American public health and social medicine professionals to reflect on the equity of health access in American society.[55]

Conclusion

The history of barefoot doctors shows a unique developmental path of social medicine in the changing sociopolitical context of China. The state played decisive roles in defining social medicine, shaping medical and health development strategies, and establishing and reforming medical systems in Mao's era, in the post-Mao era, and in the new millennium. During this process, the crucial and challenging issue for the state was to deliver its limited medical resources to the huge rural populations according to its proclaimed political ideologies of social equity and justice. Social medicine in rural China's sociopolitical context was essentially healthcare provision within the basic units of its administrative system, such as the production brigade in the socialist era and the administrative village in the post-socialist era. In this sense, social medicine is a grand aim, while community medicine is a changing operational scheme in different sociopolitical eras.

Barefoot doctors as representative of China's social medicine involved two sets of relationships, that is traditional Chinese medicine versus modern biomedicine and administrative versus medical systems. This scheme aimed to provide low-cost healthcare to Chinese rural populations through the demedicalization of biomedicine, de-professionalization, and localization in the institutionalization of the medical system. However, the history of barefoot doctors indicated that social medicine in China could not avoid the dominance of biomedicine, the trend of professionalization, and the emergence of delocalization, while medical institutionalization continued its momentum. This process occurred in the broader context of China's sociopolitical structural inequity from 1949, which has been further exacerbated by marketization and

[53] Alondra Nelson, *Body and Soul: The Black Panther Party and the Fight against Medical Discrimination* (Minneapolis, MN: University of Minnesota Press, 2011), 17.

[54] Emily Baum, "Acupuncture Anesthesia on American Bodies: Communism, Race, and the Cold War in the Making of 'Legitimate' Medical Science," *Bulletin of the History of Medicine* 95, no. 4 (2021): 521–2.

[55] Baum, "Acupuncture Anesthesia," 526; Nelson, *Body and Soul*, 8.

globalization since the early 1980s. The epidemiological transition has been another factor in shaping social medicine. As this chapter indicates, pharmaceuticals and vaccines have played crucial roles in shaping disease models and impacting on barefoot-doctor programs. Invention, production, and distribution involved both medical technological and sociopolitical factors. Among them, the latter is the most crucial determinant factor.

In the last two decades of the twentieth century, the state demonstrated both its ambivalent and crucial role in social medicine. On the one hand, the state's dereliction of duty in curbing the over-commercialization of the medical market seriously undermines equity of social medicine. On the other hand, the state has made steady progress in regulating and managing village doctors and contributing to addressing emerging issues of social medicine in rural areas. Entering the twenty-first century, the state continued to play a leading role in radical medical reform, which was intended to tackle a few thorny challenges, such as the overuse of pharmaceuticals, the dysfunctional medical system, and the proficiency of rural medical personnel.

As a Chinese approach to social medicine, the concept and practice of barefoot doctors are transhistorical and its aims and efforts continued throughout the late twentieth century into the new millennium. As a local solution to healthcare provision in China, the barefoot-doctor program echoed the transnational theme of social medicine in developing countries in Asia, Africa, and Latin America with different historical and sociopolitical settings. For example, compared with China, David Bannister's research on colonial and postcolonial Ghana in Chapter 13 in this volume shows tremendous similarities with China in terms of crucial factors at major stages of development. These include a village-dispensary program, a staff-selection scheme for Medical Field Units, the end of the Medical Field Unit program, and the establishment of community-based health planning and service programs. As an approach entangled with limited resources, huge populations, and radical politics, barefoot doctors also provided the inspiration for the development of social medicine in the Third World. In the new century, as in other parts of the world, population mobility, the radical change of sociopolitical structures, and the unbalanced economic development, brought about by urbanization and globalization, are posing new challenges for the state to address social medicine in China. The effect of the Chinese new approach is to be observed and assessed.