

China's village doctors take great strides

Village doctors have dramatically improved access to health care in China's rural communities over the last few decades. Cui Weiyuan reports.

China's barefoot doctors were a major inspiration to the primary health care movement leading up to the conference in Alma-Ata, in the former Soviet Republic of Kazakhstan in 1978. These health workers lived in the community they served, focused on prevention rather than cures while combining western and traditional medicines to educate people and provide basic treatment.

Dr Philip Lee, then a professor of social medicine at the University of California in San Francisco, wrote glowingly in the *Western Journal of Medicine* about China's primary health care system after visiting the country in 1973 as part of a United States of America (USA) medical delegation. He said prior to the founding of the People's Republic of China in 1949, epidemics, infectious disease and poor sanitation were widespread. "The picture today is dramatically different ... there has been a pronounced decline in the death rate, particularly infant mortality. Major epidemic diseases have been controlled ... nutritional status has been improved [and] massive campaigns of health education and environmental sanitation have been carried out. Large numbers of health workers have been trained,

and a system has been developed that provides some health service for the great majority of the people."

Dr Zhang Zhaoyang, the deputy director general of China's Department of Rural Health Management, says the barefoot doctor scheme had a profound influence on the Declaration of Alma-Ata. "WHO research in the 1970s found problems relating to the health-cost burden and unequal distribution of health resources. To try to solve the inequality, it did research in nine countries, including four cooperation centres in China. China's experience inspired WHO to launch the health for all by 2000 programme."

Zhang says the barefoot doctor scheme, initiated by central government but largely administered locally, had its origins in the 1950s. "The name barefoot doctor became popular in late 1960s after an editorial in the *People's Daily* by Chairman Mao in 1968," he says. "The name 'barefoot doctor' originated in Shanghai because farmers in the south were often barefoot working in the paddy field. But China's village doctors had been there long before. In 1951, the central government declared basic health care

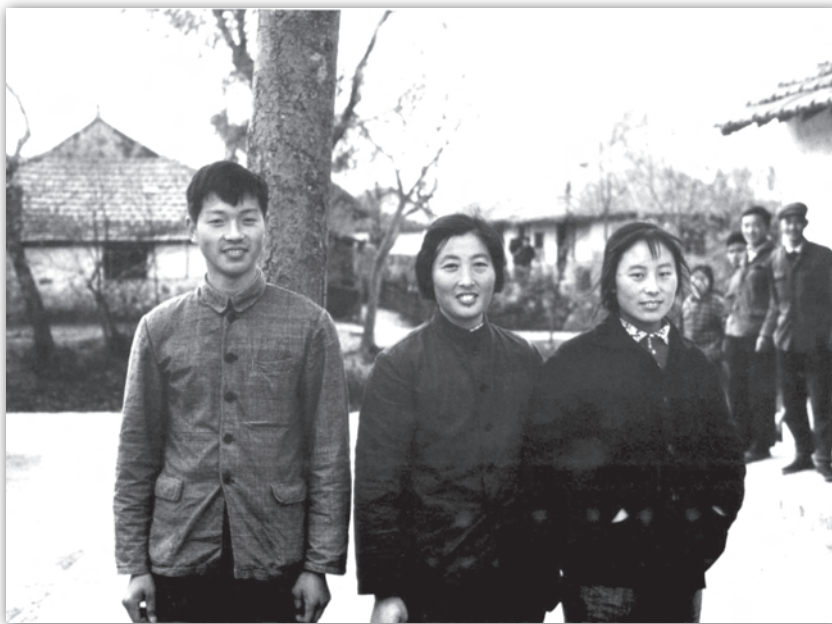
should be provided by health workers and epidemic prevention staff in villages. In 1957, there were already more than 200 000 village doctors across the nation, enabling farmers to receive basic health care at home and work every day. The barefoot doctor scheme was simply the reform of medical education in the 1960s. In areas lacking medicine or doctors, village doctors could go through short-term training – three months, six months, a year – before returning to their villages to farm and practise medicine."

“China now has more than 880 000 rural doctors, about 110 000 licensed assistant doctors and 50 000 health workers.”

Dr Zhang Zhaoyang

Zhang says the scheme has evolved over the decades, though the term barefoot doctor is no longer used. "The scheme has never stopped. In the early 1980s, the State Council (the Central People's Government, the highest executive organ in China) directed that barefoot doctors, after passing an examination, could qualify as a 'village doctor'. Those who failed would be health workers and practise under the guidance of the village doctors. The village doctors and rural health workers still undertake the most primary health work – prevention, education, maternal and child health care, collecting disease information. The quality of [care provided by] rural doctors keeps increasing in line with social and economic development."

Dr Liu Xingzhu, the programme director at the Fogarty International Centre at the National Institutes of Health in the USA, was a barefoot doctor from 1975–1977. Aged 19, his senior secondary school classes were interrupted during the Cultural Revolution drive to equip people with practical skills. "The county's health bureau organized medical training in my school and provided free accommodation and food. The trainers were



WHOM Grata

Three barefoot doctors, part of a production brigade near Shanghai.

the best from the county's central hospital in various fields. Many of the doctors were dispatched from the urban hospitals during the Down to the Countryside Movement (when Mao decreed 'privileged' urban youth go to rural areas to learn from workers and farmers) and showed great professionalism. They were very good trainers and doctors.

"After graduating in June 1975, I became a barefoot doctor at the Suliuzhuang commune (in north-western Shandong Province, south of Beijing) serving 1800 residents. Despite the knowledge I learned from the strict training, the conditions and equipment in the countryside were very limited. I was given only a bag of some basic medicine with two syringes and 10 needles."

Therein lay both the strength and weakness of the barefoot doctor scheme. It provided the rural poor with health care not known in pre-Revolution days, but the doctors' limited training, equipment and medical supplies meant they could not do a lot.

Another of the barefoot brigade, Dr Liu Yuzhong, still offers basic health care to his fellow villagers after 43 years' service. Now 69, he is known by patients as a caring, skilful doctor, though he says, "I learned something of everything, but specialized in nothing." He adds: "There are great advantages to having a barefoot doctor in the village. The patients are all my neighbours. I know each family's situation, lifestyle and habits. Since I see my patients very often, even if I cannot diagnose precisely the first time, I can follow up closely and give a better diagnosis the next time."

When the rural cooperative health-care system was dismantled in the 1980s as a result of China's economic liberalization, Liu Yuzhong was hired by the local Dingfuzhuang Health Centre on the eastern outskirts of Beijing. "I was lucky because I had passed a Ministry of Health exam in 1981 and acquired the certificate to practise as a village doctor."

Liu Xingzhu believes health-care services did suffer in the late 1970s and early 1980s when the agricultural sector was privatized. "The barefoot doctors, who were paid collectively by the commune, lost their source of income. Many turned to farming or industry. The most direct effect was that few did inoculations or provided primary health care for the peasants. Many diseases that had been eradicated emerged in the countryside again."

“I was lucky because I had passed a Ministry of Health exam in 1981 and acquired the certificate to practise as a village doctor.”

Dr Liu Yuzhong

The user-pays system introduced in China in the 1980s left many out of pocket or unable to afford treatment. The government in recent years has recognized the need to increase health spending and promote new health insurance schemes, a reflection perhaps of China's special commitment to a primary health care system that "everyone can enjoy, reflects social equality, is affordable for everyone and matches social and economic development," according to Zhang. Dr Lei Haicho of the Department of Health Policy and Regulation at the Ministry of Health, says the New Rural Cooperative Medical Scheme introduced in 2003 now covers more than 800 million rural residents, while public financing of the health system has increased substantially.

Zhang maintains, however, health-care standards have risen steadily in China, thanks in part to the work of village doctors and health workers, who, he says, receive excellent training and support. "The maternal mortality rate in rural China has decreased from 150

per 100 000 before 1949 to today's 41.3 per 100 000. The infant mortality rate for the same period has decreased from 200 per 1000 to 18.6. China now has more than 880 000 rural doctors, about 110 000 licensed assistant doctors and 50 000 health workers." He believes primary health care has also helped reduce poverty in China. "Only with a health body can people undertake education and production activities and improve their living standards. Village doctors have played a significant role in preventing people from becoming impoverished."

Despite the challenges China faces in providing a modern health-care service to all of its 1.3 billion people, the barefoot doctors and their successors can still show the way to the rest of the world in primary health care, according to Zhang Lingling. Writing in the Young Voices in Research for Health 2007 essay competition sponsored by the Global Forum for Health Research and the *Lancet*, the doctoral student at the Harvard School of Public Health said: "The impact of barefoot doctors in rural health-care services still exists. Today, both researchers and policy-makers have widely acknowledged it is hard to bring people to work in rural areas. Even the developed countries have experienced a difficult time attracting medical professionals to rural places [so] training local people seems to be the optimal solution [in] building sustainability in rural health-care services."

Liu Xingzhu also believes the Chinese model can inform other countries' approach to primary health care. "Chinese experience showed that to promote primary health care, the key issues are human resources and medicine. Chairman Mao advocated there was no need for five years' training; one year was enough to train a doctor. Short-term training focusing on specific types of work, such as antiviral treatment or prenatal care, is sufficient to meet the demands of primary health care, especially in the countryside or poverty-stricken areas." ■