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WHERE HAVE ALL THE BAREFOOT DOCTORS GONE IN PURSUING A MORE EQUITABLE NEW HEALTH-CARE SYSTEM IN CHINA?

Lying in the bed, I breathed weakly and felt exhausted due to the frequent vomiting that had lasted for the entire night. I had caught a cold and had a high fever. It is quite common for a 12-year-old girl who is active and plays outside a lot to have a cold. But for me, that week was different. My closest friend came to visit me. So I desperately wanted to recover soon. My dad then brought me to the clinic to get a shot. This is an industry-owned clinic equipped with two doctors without formal medical training. It was the closest place to seek care for the residents living in this suburban area. The county hospital is about 30 minutes away by bicycle (the commonest transportation). Well, I got this shot and then my fever dropped quickly. I thought it was a 'miracle'. I was just happy that I could now play with my friend freely. But happy time did not last long. At night, I began to feel a headache and then started to throw up continuously, which kept me awake the whole night. Finally, it was dawn outside. Mom asked help from a person who was going to drive to the county hospital to give us a ride. After a long time waiting, I was diagnosed as having been mistakenly given a shot which I should not have had. If I had come to the hospital a bit later, I would have suffered serious consequences. I do not know whether the doctor was just trying to horrify me or whether it was indeed very serious. Anyway, it was the first time in my life that I needed to stay in the hospital for inpatient care.

I am the daughter of a barefoot doctor. My mom was sent to a village in northern China to work as a barefoot doctor at the time she was a junior high school student. This was her first profession before she became a mechanical engineer later on. All of my impressions about her old profession as a 'doctor' were from several black-and-white photos in the rural field and the skilful intravenous shot she gave to me at home. Now I am training in the Harvard School of Public Health. I began to realize that how lucky I was to have those semiprofessional doctors around when I was sick but also how fortunate that I had not become the victim of their poor training.

When I came to Harvard, I learned that health is one of the fundamental human rights. An equitable health system is essential to ensure the equal access to care for all the people regardless of their race, gender and geographic location. I have become keen on promoting health equity all over the world ever since, in particular aiming at helping people with lack of access to care. I am from the world's most populous country – China, which has a dramatic gap between urban and rural areas in health care access. The 900 million rural people in China, which account for 70% of the population, use just 20% of the nation's medical resources. The problems of poor access to and high cost of care exist widely in rural China. Health care has become a threat to impoverished families. These problems have become the second top concern of Chinese people following the income problem.¹ Barriers to access care

have been identified as an obstacle to building a harmonious society – the central goal of government policies. Reforming China's health-care system has been put on the policy agenda. Given my experience with barefoot doctors, I cannot help asking: how can barefoot doctors help in this new era?

The 'barefoot doctor' approach actually reminds me of the importance of human resources for health in building a more equitable and effective health system, to increase health access and to ensure quality of care.

Research by Anand and Barnighausen has shown that the density of health workers (physicians, nurses and midwives per 1000 population) and mortality rates (maternal, infant and under-five mortality) are negatively correlated.² The *JLI report*³ has reinforced this finding. The density of health professionals in urban China has been more than two times higher than in rural China on average.⁴ Without odds, maternal, infant and under-five mortalities have been around 2.5 to 3 times higher in rural than in urban China in the same period.⁵ From the end of the 1960s to the early 1980s it was the era of 'barefoot doctors' that caught the great interest of researchers. They were the people with limited medical training. When they were not seeing patients in clinics, they worked on farmlands just as other farmers. Although their skills were poor, the vast number of them had helped increase the access to care dramatically in rural communities. As a matter of fact, many of them improved the quality of care through learning from their medical practice day after day. In particular, some have become pioneers in discovering the use of traditional Chinese medicine. With the contribution of these thousands of barefoot doctors, along with improved social conditions, the life expectancy in China between 1931 and 1981 was doubled (from 34 to 69 years).⁶ With very limited resources, China has developed perhaps the world's largest health-care workforce with locally applicable skills. In 1985, the name 'barefoot doctors' was replaced by 'village doctors', who have to get accredited before they can practice medicine. Although the prosperity of the 'barefoot doctor' era has become history, the impact of barefoot doctors in rural health-care services still exists. Today, both researchers and policy-makers have widely acknowledged that it is hard to bring people to work in rural areas. Even the developed countries, with much economic development, have experienced a difficult time with their policy of attracting medical professionals to rural places. To sum up, training local people seems to be the optimal solution by far in terms of building sustainability in rural health-care services. The 'barefoot doctor' approach has then to be revisited and examined to meet a timely need.

The new health system reform has put community health care up to the front. Community health care is supposed to be a very important gatekeeper for people's health but its development has not been put on a par with its importance until now. General physicians have all along been absent in China's health system. Community health reform is currently blooming in the country, with the slogan everywhere advocating 'treat minor diseases in the local community'. By achieving this goal, health resources will be better utilized by reducing the workload on minor health problems in tertiary hospitals. With the rising double burden of disease, community-based primary care can help prevent and manage chronic disease effectively.

This beautiful blueprint will eventually need health workers to carry it out and make it happen. But according to the 2002 statistics, the majority of health workers at the

community level only possess vocational or secondary-school degrees (equivalent to high school education). Reality tells us that a qualified health workforce cannot be formed right away. The remuneration and working conditions in communities are not attractive enough for highly qualified health personnel either. On the one hand, we want health workers with higher education; on the other hand, the effective incentive system is not in place. Given this dilemma, the old 'barefoot doctor' approach provides the rationale for the new approach in the new time: producing appropriate health professionals by training them with appropriate skills. A community doctor will be trained towards the needs of community-based health care, such as disease prevention, health education, referral, etc. These community doctors per se are the continuation of barefoot doctors in the 21st century.

Although barefoot doctors originally stemmed from rural China, it is more difficult to implement this approach there than in urban communities. Even though there is the accreditation system, a lot of private practitioners in villages are not licensed. It is hard to identify them from official statistics and difficult to organize systematic training for them. As consumers, the villagers seem tolerant with malpractice happening to their families. While a middle-aged farmer told me that his son died due to the wrong shot, I did not find anger or hatred in his face. But I knew that the family must have gone through a really hard time. Thus, the training for appropriate yet important skills for these frontline health-care workers is key to ensuring equitable access to care coupled with good quality.

A granddaughter of my hostess in the village vomited at night. My childhood experience flashed back at that moment. The hostess told me with the certainty that her granddaughter would just need a certain shot from the village clinic. I heard my response in my mind: I hope people like this little girl would get not only easy access to care but also the right treatment.

1 Rao K, Liu XM. *International Health System Reform and China*. Peking, Peking Medical Union University Publishing House, 2007.

2 Anand S, Barnighausen T. Human resources and health outcomes: cross-country econometric study. *Lancet*, 2004, 364: 1603-09.

3 Chen L et al. Human resources for health: overcoming the crisis. *Lancet*, 2004, 364: 1984-90.

4 China Ministry of Health. *China Health Statistics Yearbook 2006*. Peking, Peking Medical Union University Publishing House, 2006.

5 Ibid, op cit. 4.

6 *Statistics Annual*. Geneva, World Health Organization, 1983.

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