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NEW APPROACHES TO THE HEALTH SERVICES:
THE EXAMPLE OF THE BAREFOOT DOCTOR

by

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Towards the end of 1973, I was one of a group of WHO staff, some from Headquarters and some from the Western Pacific Regional Office, who visited the People's Republic of China for a period of three weeks.

We were able to see all types of health facility in the cities of Canton (Kwangchow) Peking, Nanking and Shanghai, and in the counties and rural areas in the vicinity of those cities. We talked with health personnel at all levels from surgeons specializing in limb reimplantation in highly sophisticated hospital units to barefoot doctors and health aides working at the periphery of the health care delivery system.

As I look back on the visit which our group made, I realize how much of what we saw would not have been fully understood had we not been given a briefing on the background of the present system of medical and health care. I therefore propose to preface my comments on the barefoot doctors with a brief introduction on events which led up to the training of this category of health worker on a large scale.

At the time when the People's Republic of China established firm control over the Mainland, i.e., 1949, the country had a very poor system of medical care. Few doctors of "western medicine" were practising in China. Use of the term "western medicine" is sometimes questioned but the words are used by the Chinese themselves to distinguish between doctors trained in so called "scientific" or "modern" medicine and those trained in traditional Chinese medicine. Chinese data indicate that the number of practitioners trained in Western medicine was about 40 000 in 1950. At that time the population was in the region of 540 million and the doctor/population ratio was therefore about 1/135 000. It must also be remembered that most of the doctors were working in the larger cities. The vast majority of the people especially those in rural areas were served by practitioners of traditional Chinese medicine.

The People's Republic of China initially attempted to provide Western type medical care to the people through training medical personnel of two types; doctors whose training largely followed that of Western medical schools and middle level medical personnel, i.e., medical assistants trained along the lines of the feldsher of the Soviet Union. At the same time attempts were made to integrate the practitioners of Western medicine with those of traditional medicine. Despite the efforts which were made the needs of the people in the rural areas could not be met.

The authorities realized the gravity of the situation and in 1965 on 26 June, not long before the start of the Cultural Revolution, Chairman Mao issued a directive that "In health and medical work put the stress on the rural areas." This directive is known throughout China and simply referred to as "the 26th June Directive."

During the Cultural Revolution which had its beginnings in 1965, severe criticism of public health work in China was voiced as evidenced by the following broadcast by Radio Kunming, Yunnan Province on 24 August 1967.

"Public health work is serving only 15 per cent. of the population of the nation. The peasants cannot get treatment. They have no doctor and no medicine. The Ministry of Health is not the people's Ministry of Health. It has become a Ministry of Health of the Towns and Mandarins. We would call it the Towns' and Mandarins' Ministry of Health."

Following Chairman Mao's directive several steps were taken to change the pattern of delivery of health care. The first of these was a redistribution of a large proportion of all categories of health manpower from the urban hospitals to the rural areas to strengthen peripheral health services. A second was the creation of 'mobile medical teams' from the medical schools and hospitals which visit the rural areas to further strengthen the delivery of basic health services by demonstration, teaching and in-service training. A third was the training of large numbers of auxiliary personnel of which the barefoot doctors are the most widely known.

The barefoot doctors represent the most original feature of the health services in China. They are functioning in all areas of China. The overall ratio of barefoot doctors in the population in 1973 is 1 to 650 people. By December 1973, a total of 1 220 000 had been trained.

The barefoot doctor works predominantly in rural China where about 75%-80% of the 800 million people live.

A brief explanation of the political organization of rural China is indicated as further background material to the role of the barefoot doctors. An early activity of the Government of the People's Republic of China was to hand rural land over from the landlords to the peasants who worked and lived on it. Initially during the 1950's cooperatives were formed. However, a great deal of the farm land in China is now under the collective ownership of communes. Each commune is a political unit of the county and has its own internal self government. The commune is divided into production brigades and each production brigade into production teams. The production team is the smallest working unit. In each production brigade there may be a ratio of as many as one barefoot doctor to each production team but this is not the case in all areas.

The situation is quite variable. For example, the East-West commune about 25 km. from Canton has a population of 67 000 living in 12 000 households. The people are organized into 25 production brigades and the brigades into 343 production teams. The commune has 120 barefoot doctors in addition to the doctors working in the commune hospital. By way of comparison the Niu Lan Shan commune in Shun Yi County outside Peking has

a population of 21 000 organized into 20 production brigades and 64 production teams. One of the production brigades, Sen Kia Kao is divided to three production teams. There are three barefoot doctors in the production brigade.

The Chinese have defined a barefoot doctor as "a peasant who has had basic medical training and gives treatment without leaving productive work. He gets the name because in the south peasants work barefooted in rice paddies". Actually during the visit of our group to China we did not see a single barefooted barefoot doctor.

In the late 1950's there was some training of auxiliary health personnel in rural areas. They continued their work in agriculture at the same time as they carried out activities in the health field. However, in the early 1960's there was criticism of the system, criticism now regarded and in turn criticized as "revisionist", and both the training and the numbers of such health workers were reduced.

A few months prior to the Cultural Revolution the training of barefoot doctors was recommenced but the maximum impetus came with Chairman Mao's directive of 26 June and the Cultural Revolution which followed.

The barefoot doctor trainee is nominated by and recruited from his local commune in a rural area. He is chosen by the members of his production brigade. After training he returns to his original place of work to resume membership of his community as an agricultural worker and in addition a health worker.

Three important facts emerge from the above. The first is that those to be trained as barefoot doctors must initially be held in high regard by their peer group in the production brigade. The second is that after training they return to join the same group. The third is that they undertake health care activities on a part-time basis.

Most barefoot doctors we saw spent about half of their time doing agricultural work, which distinguishes this category of health worker from "assistant medical officers" found in some countries where health activities are of a full time nature.

From the point of view of income the barefoot doctor neither benefits nor loses from the time he spends on health work. He receives the same income as the agricultural worker of his commune which in turn is related to the total income of the commune. The barefoot doctor is credited with the same number of "work points" for work in health and medical care as he would receive for an equivalent period working in the fields.

The majority of barefoot doctors have had a middle high school education prior to the initial period of training which is short, usually only of three months duration. The actual courses vary from one part of the country to another but the overall emphasis is on the integration of preventive and curative medicine with special emphasis on the former and the practice of traditional as well as Western medicine.

The course includes the basic elements of anatomy and physiology, microbiology, pathology and clinical medicine, preventive medicine and traditional medicine. The barefoot doctor's instruction includes, for example, how to sterilize needles and syringes and how to give injections. He learns how infectious diseases are spread and how to diagnose them. His teachers instruct him how to take a simple history, the diagnosis and treatment of common diseases and most importantly how to detect the signs and symptoms of serious disease. He is taught the dosage of a limited number of drugs and the techniques and usage of acupuncture. Female trainees may be taught to conduct normal deliveries, to insert IUDs and to do abortions. A Manual - a mini textbook - has been written especially for barefoot doctors.

The initial training is neither formal nor standardized. It is almost entirely carried out on an apprenticeship basis depending on the teachers themselves who include physicians, nurses and more highly trained auxiliaries at the commune hospital, and on local needs. Training is geared to practical needs.

In the rural areas the barefoot doctor is trained in the commune hospital by the hospital staff and by mobile teams working in the area. On some occasions he may be trained in a county hospital.

On completion of his initial period of training his most important health care duties are to serve the cooperative medical system by:

- providing basic medical care, immunizations and first aid;
- promoting health education, prevention and environmental sanitation;
- fighting against the "four pests" - rats, flies, mosquitoes and bedbugs;
- post-illness follow-up;
- the referral of cases exceeding his competence;
- the training of 'health aides' who work in the production teams and health workers for the collection and treatment of excreta for use as fertilizer.

Just as the period of initial training may vary throughout the country the duties vary also, sometimes even from commune to commune, according to local needs. As far as could be seen in the areas visited the duties which were to be expected of the barefoot doctor determined his training, i.e., training to task. During a visit to Peking Medical College we were told that some barefoot doctors who were to work in extremely isolated areas are taught to do an appendectomy.

The shortcomings of a limited period of initial training are overcome to a large extent by a number of means. The barefoot doctor keeps in close contact with the commune hospital where he must return to report several

times a month. He is given refresher training from time to time at the commune hospital for periods of several weeks duration. In addition, he is given further training by the mobile medical teams working in the rural areas. Most importantly the path of referral for patients beyond his competence is well defined. The barefoot doctor refers to the commune hospital which in turn may refer to the county hospital. The county hospital can, if necessary, refer to a municipal hospital or a highly specialized unit.

Some evidence of the high regard in which the barefoot doctor is held and of the importance attributed to this type of personnel are indicated by a trend which is developing in the selection of candidates for entry into medical school. That the candidate student be a barefoot doctor is becoming more and more a prerequisite for entrance to medical school. In two medical schools visited by the WHO group in 1973, 40% and 70% of the students admitted that year were barefoot doctors.

The concept of the medical assistant is of course not new. In the Western Pacific Region, Fiji was training medical assistants in the 1880s and many types of auxiliary are now being trained in several countries of the Region. This Region is no different from other regions in that the major problem and major challenge at the present time are to deliver basic health services at the periphery to rural population groups, particularly in those countries at a relatively low or intermediate stage of development, where there is not only a shortage of human resources but also severe financial constraints on the amount of money that can be directed to the health sector.

In addition to China interesting developments are taking place in several other countries of which those in the Philippines and Korea are the most noteworthy. In the Philippines, a retrained midwife is delivering basic health care on pilot experimental basis. In the Republic of Korea, single purpose auxiliary workers in MCH, Tuberculosis and Family Planning are being retrained as multipurpose workers in all areas of the basic health services except medical care.

The conclusion, the major factors which characterize the barefoot doctor of the health services in China are the following:

- (1) The method of selection.
- (2) The return of the health worker to his own community after training.
- (3) The fact that he is a part-time health worker.
- (4) The shortness of his initial period of training.

- (5) His ready access to an established referral system of cases of need.
- (6) The integration of preventive, curative, traditional and Western medicine.
- (7) The magnitude of the scale on which he has been trained.

During the visit of the WHO group late in 1973, the Chinese health authorities stressed the point that the whole system of the provision of health care and the training of all categories of health worker were in a state of experimentation, trial and evolution. There is no doubt whatsoever that the introduction of the barefoot doctor has brought health care complementary to traditional medicine to a vast population group which in the past had none. A reasonable prediction however, particularly in view of the emphasis being placed on retraining of the barefoot doctor is that his services may increase both in range and in depth and that over the years to come his level of training may well become that of a much more highly qualified medical auxiliary. The question is open to discussion.