

12. THE CASE OF CHINA

Xing Houyuan

In this article, "medical services" fall into two categories: "public" medical services and "private" medical services. Public medical services refer to services which are provided by hospitals financed by the government, whereas private medical services refer to services which are provided by hospitals privately run by individuals. In China, public hospitals are generally larger, and more capable of providing services, than private ones.

I THE BASIS OF CHINA'S MEDICAL SERVICE EXPORTS

China is a developing country with a large population, where medical and health-care services play a very important role in the entire national economy. Since the founding of the People's Republic of China (PRC) in 1949, the situation of medical and health-care services in China has improved rapidly, with a large increase in the number of hospitals, medical personnel and nurses, and per capita provision of hospital beds, and personnel and nurses. Although medical and health-care conditions in China are far inferior to those in developed countries, and even inferior to those in some other developing countries such as India and Singapore, they have greatly improved. The death rates for infants and children and for women in childbirth have all fallen considerably. Statistics in reports on epidemic diseases show that China, after the founding of the PRC, eradicated completely or virtually such epidemic diseases as classic biological cholera, plague, smallpox, recurrent fever, typhus and kala-azar, and that the incidences of such epidemic diseases as tuberculosis, malaria, snail fever, poliomyelitis which occurred frequently in infants, diphtheria and measles fell to a very low level.

There are four main reasons which explain the rapid development of medical and health-care services in China. The first is the influence of economic growth. The national economy has been growing quickly since the founding of the PRC, especially since the late 1970s, and the government's investment in medical and health-care services has increased. At the same time, population growth and the increase in people's income have resulted in greater demands for

medical and health-care services. The second is the influence of government policy regarding the development of medical and health-care services. In China, medical and care services are closely related to social welfare. The charges for medical and health-care services provided by the public sector are in the nature of public welfare, and some fees are charged at less than cost. The third is that the government has paid great attention to the development of medical and health education. The number of students in schools of medicine and health-care has increased continuously. The fourth is that, since China carried out reform and implemented an "open door" policy, the number of private hospitals, after a sharp decrease, has increased rapidly.

The development of China's medical and health-care industry is clearly characterized by great differences between the town and country, i.e. the medical and health-care conditions in the vast countryside are rather backward, while the conditions in urban areas approach the level of newly industrialized countries and "middle-income" countries.

II MEDICAL AND HEALTH-CARE SERVICES IN CHINA

The Chinese nation has a five-thousand-year-old history of civilization. In the Orient, traditional Chinese medical science and culture occupy a very important position. This science and culture, from the Compendium of Materia Medica written by Li Shizhen, up to acupuncture and moxibustion techniques has made a huge contribution to the advancement of medical science and the health care of human beings. In the 1970s, for example, Chinese scientists developed artemisinin (qinghaosu), a traditional-type Chinese medicinal preparation, to defeat tropical malaria for the first time. Owing to the advantages of traditional Chinese medicine as compared to Western medicine in treating some difficult and complicated diseases and in health care, traditional Chinese medicine, which was in the past popular among overseas Chinese and deeply rooted in South-East Asia, has in recent years been introduced into Africa, Latin America and even European countries and the United States. Medical practice has a marked curative effect in bone setting massotherapy and the medical care of such chronic diseases as rheumatoid arthritis, but also has a substantial effect in the prevention and treatment of modern diseases such as cancer and AIDS, and is able to delay death and prolong life. Eventually, France became acquainted with traditional Chinese medicine and permitted doctors of traditional Chinese medicine to practise in the country. Doctors in acupuncture and moxibustion have also been licensed to practise in the United States.

During the Qing Dynasty, China accepted Western medicine brought into the country by Western missionaries, and many people began to learn Western medicine and became doctors. Within the past hundred or more years, Chinese people have studied Western medical science while further developing traditional Chinese medical science. They have combined traditional Chinese and Western medicine in clinical treatment and invented the therapy of two different medicines at the same time. They took the advantages of both

traditional Chinese medicine and Western medicine in basic medical research, clinical diagnosis and clinical treatment, thus creating a new marvel of medical science. China has now outpatient services combining traditional Chinese and Western medicine, experts who are well trained in both types of medicine, and hospitals where divisions of traditional Chinese medicine and of Western medicine co-exist. Furthermore, many patients have been cured of their illnesses only after receiving therapies which combined traditional Chinese and Western medicine. In confronting the difficult problems of modern medical science, such therapies have shown their superiority.

In China, modern medical science has also achieved a high level and rapid development. Besides having the capability to diagnose and treat ordinary diseases, China is in the lead in such fields as microsurgery (severed limb suturation and regeneration), ophthalmology (e.g. discovery of chlamydia trachoma, prevention and treatment of trachoma, and ophthalmological surgery), dentistry, orthopaedics of spine and limb deformations, and also obtained brilliant achievements in the early diagnosis and treatment of a liver cancer less than 5 centimetres in diameter, and the rate of "patients' five years of life" after treatment has been listed among the highest in the world.

III EXPORT OF MEDICAL SERVICES FROM CHINA

China's medical and health-care service exports have been expanding on the basis of provision of medical assistance to developing countries in Asia, Africa and Latin America. During the early 1960s, the Chinese Government undertook an international obligation to provide certain countries with economic and technical aid, assisting Asian, African and Latin American developing countries towards political independence and the development of their national economies, even though China's own national economy was in difficulty at that time. This was an important aspect of China's foreign economic and technical assistance. The initial method of providing medical services abroad was by dispatching medical teams to countries with poor medical conditions in order to relieve the population of illness and to train local medical personnel. Since dispatching medical teams was a kind of free assistance, the services provided to foreign patients by Chinese medical personnel were free of charge. When providing medical assistance, China acquired information about the supply and demand in the international medical service market, and made its medical service level known to foreigners. This has made it possible for China to export its medical services.

It is difficult to tell exactly when China began to export medical services because there are different export methods, and each method of export has its specific time of commencement.

China exports medical services by three methods. The following paragraphs focus on the first two, namely, temporary movement of service suppliers and temporary movement of patients.

Temporary movement of service suppliers

Medical teams

As mentioned above, initially Chinese medical personnel was dispatched abroad to more than 40 countries in medical teams that rendered free medical services. As from the early 1980s, such free assistance was gradually replaced by services compensated for by payment of a small medical fee from high-income patients. It should be noted here that the expenses of medical teams came from the foreign aid funds of the Chinese government. By the end of 1995, there were still 38 countries receiving Chinese medical teams (see table 1). Since some of these countries, such as Algeria and Yemen, benefited from

Table 1. Chinese medical teams and their host countries, 1993

Host countries	Number in team
Algeria	215

China

Benin	18	
Botswana	19	
Burkina Faso	14	
Burundi	17	
Cameroon		27
Cape Verde	5	
Chad	9	
Congo	31	
Djibouti	5	
Equatorial Guinea	19	
Ethiopia	15	
Gabon	27	
Gambia	21	
Guinea	18	
Guyana	8	
Kuwait	14	
Madagascar	27	
Mali	31	
Malta	5	
Mauritania	18	
Morocco	74	
Mozambique	9	
Rwanda	10	
Sao Tome and Principe	16	
Senegal	17	
Seychelles	4	
Sierra Leone	10	
Sudan	30	
Tanzania	40	
Togo	21	
Tunisia	53	
Uganda	12	
Yemen	203	
Zaire	16	
Zambia	25	
Zanzibar	24	
Zimbabwe	8	
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Total	1 135	

Source: Ministry of Public Health, PRC

smooth economic development and had a high revenue, when receiving Chinese medical teams their governments paid them wages equal to the amounts paid to local medical personnel. Thus, the dispatch of medical teams by China to a few developing countries has become part of trade in medical services. There were some other receiving countries, such as Congo and Tanzania, whose governments provided Chinese medical teams with a small living allowance (US\$ 150 per person/month). The governments of many other countries,

however, provided only housing and transport for Chinese medical teams, all of whose expenses came from China's foreign aid funds. In over 30 years, the number of medical personnel sent abroad with medical teams totalled 15,000, including doctors of Western and traditional Chinese medicine, pharmacists, and a small number of nurses.

Export of medical service personnel

During the early 1980s, when Chinese construction workers started to go abroad, medical personnel (including doctors of Western and traditional Chinese medicine, and nurses) also began to flow out and provide medical services in foreign countries. According to rough statistics, from 1983 to 1990 China sent medical service personnel to 28 countries or regions. Most of these personnel provided services in Asia, Africa, Southern Pacific island countries, and a few American countries (see table 2).

Table 2. **Export markets of Chinese medical services- 1983-1990**
(in US dollars thousand)

	1983	1984	1985	1986	1987	1988	1989	1990
Burkina Faso							480	
Burundi								460
Cameroon					100			
Ecuador								60
United Arab Emirates			160		430	50		
Fiji						600	180	
France					20			
Hong Kong	30				10	10		100
Iraq	1830				20	20	20	
Japan		70	110	230	10	210	240	
Jordan				50	240	360	360	240
Kuwait				100		250		
Lesotho	370							
Libya					70			
Mexico						50		
Netherlands					10			
Nigeria	510					50	20	20
Philippines						10		
Singapore				80	270	10	20	
Sudan			50					
Thailand					10			
United States					250	100		4540
Former USSR							670	940
Vanuatu				10		20	80	1100
Western Samoa					40	30	20	
Yemen	580							
Yugoslavia								320
Zaire								50
Total	3320	70	270	420	1470	1430	2500	7850

Source: Ministry of Foreign Trade and Economic Cooperation, PRC

Few medical service personnel went to Europe and North America. Although Table 2 shows that the amounts of Sino-United States labour service contracts are fairly large, most of the Chinese medical personnel sent to the United States went to Guam and Saipan, and very few to the metropolitan territory of the country. The total number of medical personnel sent out under the labour service export method was not large. Table 2 shows that the annual total value of medical service contracts has increased between 1983 and 1990. The number of various labour service personnel sent by China also increased between 1991 and 1993, amounting to 255,000 in 1995. However, the number of medical service personnel sent abroad in 1993 was calculated to be 3,000 at most.

Since no official statistics later than 1991 are available from the Ministry of Public Health or the Ministry of Foreign Trade and Economic Cooperation (MOFTEC), we had to resort to the two leading institutions that send medical

service personnel abroad. The survey results are as follows: a company under the Ministry of Public Health and specialized in trade in medical services, the China Medical Corporation for International Technical Cooperation, has sent 600 or more medical labour service personnel abroad in the past 10 years. The number of medical labour service personnel sent by the company in 1996 was 120. An institution that first began to send medical service personnel and other labour service personnel, the China State Construction Engineering Corporation sent out 50 medical service personnel in 1993. As of 1995, the institutions engaged in medical service exports totalled between 20 and 30, but the numbers of medical service personnel sent by them were very small. Some doctors of private hospitals also go abroad to provide services, but they represent only a very small percentage. The technical composition of several thousand medical service personnel is: nurses, 78%, and doctors, 20% (60% of whom are doctors in traditional Chinese medicine).

Movement of capital: making investments to establish clinics in foreign countries

Since 1979, when China began to implement its open-door policy, the number of enterprises abroad invested in and established by domestic enterprises have rapidly increased; they include wholly Chinese-owned clinics and small joint venture receiving with the hospitals of host countries. By the end of 1995, such wholly Chinese-owned clinics or joint venture hospitals numbered about 100, registered in more than 20 host countries. Only about 20 were established by the public sector and approved by the MOFTEC; the remainder are mostly privately run (up to the present, Chinese overseas investment by the private sector need not approved by the Government in China). The size of these facilities is relatively small, from US\$ 50,000 to US\$ 500,000, and usually around US\$ 200,000 to US\$ 300,000. In some joint medical ventures, the Chinese side provides labour service and technology, while the local partner invests in the premises or part of the equipment. They are located in Asia, the Middle East, Europe (including the former USSR and East European countries) and America. These clinics are very small, and each clinic generally has only a few doctors, who mainly practise traditional Chinese medicine, e.g. acupuncture and moxibustion.

Temporary movement of patients to China

Three kinds of foreigner receive medical treatment in China: foreigners who are working or studying in China for a long period; foreigners who are touring in or paying a short visit to China, who come from all parts of the world; and foreigners who have come to China for the purpose of receiving medical treatment, who are mostly overseas Chinese residents from Hong Kong, Macau, and Taiwan. In this report, the statistical figures quoted include Hong Kong and Macau before their unification with mainland China, and Taiwan.

Foreigners who are staying in China for work or study

China began to render medical and health-care services to foreigners inside China in 1949, when the PRC began to receive foreign diplomatic envoys. Thereafter, foreign students came to study in China and joined the existing foreign receivers of China's medical services. Since China began to implement its reform and opening-up policy, more and more foreign capital has been injected into the country and, as a result, the number of foreign businessmen working in China has risen fast. For this reason, there exists a fairly large market for provision of medical services to foreigners working or studying in China. However, not all such foreigners require medical services because most of them are healthy.

Since the Ministry of Public Health has no statistics on receipt of medical services by foreigners, what can be done is to seek information at relevant hospitals. The number of foreigners working and studying in Beijing is the largest in the country and the number of those who have received medical services in Beijing can be established. Let us take the case of the Beijing Union Medical College Hospital, which was financed and established in the early twentieth century by the Rockefeller Foundation, and which was the largest and most authoritative hospital in the Far East during the 1920s to the 1940s. Since it always undertaken the task of providing treatment to foreign patients since its establishment and especially since 1949, it is now the hospital receiving the largest number of foreign patients. In 1992, 4,934 were given out-patient service and 445 hospitalized; in 1993, the number increased to 16,602, 4,468 of whom were rendered out-patient service and 390 were hospitalized. Among the foreign patients received in 1993, about 5,810 had been working in China between two and five years. The famous Beijing Dongzhimen Hospital of Traditional Chinese Medicine receives about 1,000 foreign patients annually, of whom only 360 are working or studying in China for two to five years. In all, each year, about 30,000 foreigners who are working or studying in China receive medical services in Beijing, Shanghai and Guangzhou municipalities which have the biggest number of foreigners and can provide high-quality medical services.

Foreign tourists and short-term visitors

China's long history, ancient culture and natural beauty offer many attractions to foreign tourists. Since the implementation of the reform and open-door policy, the country's tourism industry has grown rapidly and the number of foreign tourists has increased annually. In 1993, China received more than seven million foreign tourists. At the same time, there has also been an increase in the number of foreigners coming to China on short visits for business, academic exchanges or diplomatic affairs. As for the number of such visitors who require medical services during their stay in China, no overall statistics are available. The figures provided by Beijing Union Medical College Hospital and Dongzhimen Hospital are 6,000 and 250 respectively. Since all hospitals (public or private) in Beijing and through the country are able to receive foreign

patients, the volume of medical services required by visitors to China is far larger than that required by foreigners who are working or studying in China. However, because services needed by foreign visitors are mainly health-care services, very little income is produced by the hospitals.

Foreigners coming to China to receive medical services

China exclusively possesses the technical knowledge of traditional Chinese medicine, the quality of its Western medical services is on the increase, and its service prices are lower than those of other developing countries in the Asia-Pacific region. As a result, more and more foreign patients are coming to China to receive medical treatment (including those who travel in China after receiving medical service). This group of foreigners accounts for 25 per cent to 30 per cent of the total number of foreigners who have received medical services in China. Beijing Union Medical College Hospital received 4,790 foreign patients who had come to China for the purpose of receipt of the hospital's medical services, while Dongzhimen Chinese Medicine Hospital received 390 in the same year. For geographical and historical reasons, Fijian and Guangdong have received more foreign patients than Beijing and Shanghai.

Few patients from developed countries have come to China for the purpose of receiving medical services.

Our research show that foreign patients come to China for the purpose of receiving medical services for the following reasons:

- some, mainly overseas Chinese, believe in traditional Chinese medicine;
- some come to refer to doctors of traditional Chinese medicine after receiving unsuccessful or undesired treatment by doctors of Western medicine in their own countries or third countries;
- some from developing countries come to China because they cannot afford prices charged by developed countries for treatment;
- some are attracted by advantages in certain medical fields. For example, some come to China specifically for the diagnosis and treatment of nephritis and liver cancer. Recently Beijing Union Medical College Hospital successfully treated a male patient from Pakistan who had been in the United States to have an operation for his deformed legs, but could not pay the high medical treatment costs.

IV APPLICATION OF TELECOMMUNICATION SERVICES IN CHINA'S FOREIGN TRADE IN MEDICAL SERVICES

As used in this section, "telecommunication services" includes international long-distance calls, telex, fax and computer telecommunication services.

China is a developing country, and its telecommunication industry is less advanced than that of industrialized countries or even of developing countries in South-East Asia. An indicator of the level of telecommunications development is the ratio of telephones to the population. In 1992, average ownership in China was 1.61 telephones per 100 people. By the end of 1992, China had 2,120,643 subscribers on the international direct dialling (IDD) system. Another indicator is the level of development of the computer telecommunication network. At present, the computer telecommunication network set up in Beijing with the Ministry of Posts and Telecommunications as its centre covers China's 31 provinces, municipalities directly under the central Government, and autonomous regions, and is connected with the networks of 60 foreign countries and regions. Agreements with some other countries are now being discussed. The computer telecommunication technology and equipment used by China are advanced. China set up its public packet-switching data network (CHINAPAC) in the late 1980s, using the DPN-100 host computer imported from Canada as the network's master computer, and then, later, using replacement computer equipment imported from France.

In 1992, China imported Stratus CLX820 computers from the United States, and established Beijing Public E-mail Box System. Most of the domestic users who have joined the network are financial, trade and scientific research institutions, but the number of users is still small. Units numbered only 1,000, although the maximum capacity of the equipment is 40,000 E-mail boxes.

In China's foreign trade in medical services, the role played by telecommunication services is limited. A satisfactory job has been done in most cases. Telecommunication services play a role in the following aspects:

- IDD and fax can accurately and promptly transmit information relating to foreign market demands;
- the computer systems of some domestic medical research institutions are connected to international networks, which facilitates information transmission and academic exchanges with the foreign medical research institutions of developed countries;
- in China's coastal Guangdong, Fujian and Guangshi Provinces, cross-border medical services are provided in the form of telediagnosis services, by telephone or fax, to patients in Hong Kong, Macau, Taiwan and some South-East Asian countries. This kind of services is rarely provided in Beijing and Shanghai. According to estimates made by public health authorities, the annual volume of trade realized through such cross-border services amounts to only between US\$ 30,000 and US\$ 200,000;

- computer data-bases of domestic hospitals provide diagnostic data by fax to Chinese clinics and medical personnel established in foreign countries, thus indirectly facilitating medical service exports, but such cases rarely occur. So far, China has not provided any services to foreigners by directly using computers or satellites to transmit data and information.

V MAJOR BARRIERS TO CHINA'S MEDICAL SERVICE EXPORTS

We have described above the overall situation of China's medical service exports. To sum up, all modes of export have increased, but the total scale of export is small, and export growth is slow. Many barriers and difficulties, both domestic and foreign, hinder the expansion of China's medical service exports. The results of preliminary investigations of such barriers are described below.

Barriers from abroad

Licensure. Chinese doctors of Western medicine do not have the right to practise in European and North American countries. The reason is that the diplomas of Chinese doctors are not admitted and Chinese doctors can be permitted to practise in such countries only after they have obtained a medical degree there. As a result, most Chinese doctors are prevented from providing services in those countries.

Language skills. China has a large number of well-trained nurses. These nurses' foreign language and professional skills have reached the standards of many foreign countries. But in some countries, before Chinese nurses are employed, they have to pass a difficult examination, and even the terms and conditions for them to take the examination are strict. For instance, the United States requires Chinese nurses who hold graduation certificates from regular domestic nurses' schools to sit for the registration examination of the Commission on Graduates of Foreign Nursing Schools (CGFNS). Only those who have passed the examination are qualified for employment in the United States. CGFNS has provided examination centres in many countries and regions, but none has been provided in China. If Chinese nurses decide to take the CGFNS examination, they have to sit it in the United States, or any other country or region where there is an examination centre. Taking such an examination is very expensive and time-consuming. So, it is quite difficult for Chinese nurses to provide services in United States, and China's medical service exports to the United States have been adversely effected.

Scepticism towards traditional Chinese medicine. Although traditional Chinese medicine is well known in the world, many countries still take a sceptical attitude to its theory and clinical treatment technique. Some countries prohibit doctors of traditional Chinese medicine from providing services to

patients. In the United States, only acupuncture and moxibustion can be practised after approval, while other traditional Chinese medical therapies are prohibited. In Western Europe, there have been some improvements. Germany and France have accepted traditional Chinese medical theory and allowed doctors of traditional Chinese medicine to establish clinics. It is likely to take a long time for many countries to understand traditional Chinese medicine.

Medical insurance. Foreign countries' medical insurance systems prevent their residents from receiving medical treatment in China. Various countries implement a medical insurance system which covers only domestic medical services received by their residents and which does not apply to cases where patients receive medical services in a foreign country. This means the medical expenses will be borne by foreign patients themselves if they come to China to receive medical services. Though the price of services rendered to domestic and foreign patients is comparatively low, in the case of a chronic or complicated disease, foreign patients still have to pay considerable expenses. Traditional Chinese medical therapies focus more on "normalization of energy and blood" than "medical treatment". In order to have their bodies returned to normal metabolism and balance, patients usually have to take tonics and/or receive a Qigong therapy. This part of the treatment is expensive. If foreign medical insurance schemes would cover such medical expenses, patients would come to China to receive medical treatment without considering their financial situations. On the contrary, if medical insurance does not include such expenses, then it is not easy for many patients, who are not well off, to decide to come to China for medical treatment.

Cultural differences. Differences in language, culture and religion also impair China's medical service exports. For example, China has few Christians, including Catholics, and churches are not popular. If foreign Christians come to stay for a long time in China for medical treatment, they may feel that it is less convenient than in their own countries. Again, linguistic barriers can impair the quality of services. For traditional Chinese medical science, "interrogation" is one of the four methods of diagnosis, requiring doctors to ask their patients questions about their conditions and the causes of the illness. Interrogation, i.e. inquiring into the case history by a practitioner of traditional Chinese medicine, is also one of the basic methods of diagnosis. If the doctor and his or her patient cannot understand each other at this stage, the doctor would have difficulty in knowing the history just through feeling the pulse and observation. Perhaps the patient could see the doctor with an interpreter who is proficient in both English and traditional Chinese medicine, but what would be the effect on cost and the price of the service?

Capital investment. The export market for Chinese medical services is mainly concentrated in the developing countries. However, medical conditions in most of the developing countries are generally poor, so that Chinese doctors cannot carry out their professional work with local cooperation, such as having

the necessary premises, basic equipment and nurses. Therefore, China should change the way it exports medical services to the developing countries, which means not only exporting medical services by the movement of professional doctors but also by increasing capital, so that hospitals with advanced equipment can be opened in those countries.

Domestic difficulties and barriers

Lack of investment and shortage of medical equipment. Rapid economic development is now under way in China and requires a great deal of money. Central and local government investment in the medical and health area is limited. It is easy to find a hospital with some medical exports and a professor, but it is difficult to find a hospital with advanced and comprehensive equipment. For example, Beijing Union Medical College Hospital maintains its great prestige both at home and abroad, but has lost its international standing in the Far East, because there are hospitals equipped with more advanced facilities in Japan, Hong Kong, and Singapore. Since China is a big country of more than one billion people, the lack of investment in the medical area and the shortage of medical facilities will undoubtedly lead to an inefficient cycle in medical services due to inadequate equipment.

Failure to utilize the latest advances in telecommunication. Computers are now in common use in offices in China, but are used less for international and national communications. In some hospitals, there are medical databases for internal use, but not for external and international use. Therefore it is impossible to develop trade in medical services through the use of computerized medical databases and the transmission of medical data by telecommunications and satellite. Even between Chinese overseas clinics (or Chinese medical teams) and domestic hospitals, cross-border trade in medical services is very limited. In all, there is a lack of use of telecommunications by medical services in China.

Low cost of medical services. The medical and health services have been treated as income-related services under the guidance of the Chinese Government, so that limits have been set on service charges, including services for foreigners, with half charges for foreign students. As a result, Chinese hospitals are not very interested in exporting medical services, though foreigners may derive great benefits from the low cost.

Lack of market information. At present, there is a great demand for medical services in the international market, especially the demand for nursing services in the developed countries, as the number of their aged people increases. In the Middle East oil-export countries, there is also a high demand for both doctors and nurses. However, the market demand for medical services is very dispersed and the question of Chinese hospital having quick access to demand information is an important and urgent problem.

Limited foreign language proficiency. The lower level of foreign language proficiency makes the quality of Chinese medical services uncompetitive. Most Chinese medical staff have learnt English or one of the other foreign languages at their schools or colleges for years and some who have studied abroad can speak English very well, but their language understanding and ability to express themselves in English is not as good as people whose

mother tongue or official language is English. Egypt, India and Singapore are all countries which use English as their official language and export many medical services on the international market. When Chinese medical staff compete with people from these three countries, the winners could only be the foreigners, because of their language ability.

Differences in education systems. There are some differences in the education system in China as compared with foreign countries, especially in the length of schooling at medical college or school. For instance, there are nursing departments in some of the medical colleges or schools in the United States from which students obtain an academic degree, becoming nurses on graduation from the school. Hospitals in Middle Eastern countries which employ nurses who have only graduated from high school before they went to nursing schools. But in China most Chinese nurses have graduated only from middle school, after which they attended nursing school. These kinds of difference in education systems mean that China's nurses lose many opportunities of service abroad.

Limitations of traditional Chinese medicine. A practitioner of traditional Chinese medicine will not prescribe unless he discusses with his patient. It is said that every patient has a different physical disposition and needs special prescriptions. Thus, traditional Chinese medicine is unsuited to cross-border trade in medical services.

VI CONCLUSION: POLICY RECOMMENDATIONS TO MEDICAL SERVICE EXPORTS FROM CHINA

Considering the promising prospects for medical service exports from China, and the variety of barriers and restrictive factors at home and abroad, we make the recommendations set out below in order to achieve the development objective of increasing medical service exports from China.

Recommendations for the authorities

In China, public hospitals are the main suppliers of medical services. The Government plays a large role in medical service provision and always accords development priority to the institutions in the public sector. The main responsibility for eliminating or reducing the abovementioned restrictions at home and abroad, in order to increase medical service exports from China, is naturally left to the central and regional governments.

Increase of the central and regional fiscal budget for public health. China is now facing increasing pressure from its huge population, and the medical services bear the brunt. Although the past few years have seen a rapid expansion of the national economy, the growth rate of government expenditure in public health is far below the economic growth rate. In particular, the

underdeveloped medical service infrastructure in the vast rural area drags down the national average level in this field as a whole. At present, as the major approach to improving medical service level in China, the Government should increase the governmental budget for public health.

Reform of medical service systems and introduction of market mechanisms. The public medical service should not be treated as only a kind of social welfare provided at fixed low prices with the financial support of the government, which is undesirable for both the hospitals and the governments. A reform now under way in some places should be expanded: it is desired to give the hospitals some authority on pricing the services provided, and to replace the government subsidy to staff and workers in the state institutions and enterprises with a health insurance policy for all citizens. Meanwhile, the government should encourage the growth of the private sector in medical services. The reforms in both public and private sectors are bound to help the formation of a domestic medical services market.

Reform of the medical education system. International standards in length of schooling have been adopted in some of our educational institutions for prospective professionals in medicine, pharmaceuticals and nursing in the past five years. It is desirable for the Government to accelerate the speed of such reform and to extend its scope in the institutions.

Taking psychology, for instance, we find that in China's medical universities and schools, the curriculum for psychology majors cannot meet the actual needs of patients, let alone the non-psychology medical specialties, including nursing, where psychology is treated as a matter of little importance. Even in large hospitals, the difficulties in getting psychotherapeutic services cannot be underestimated. Nowadays, there are few things more deserving of attention for personal health than psychological soundness and, the faster the pace of living, the more frequently people feel tension. With the advent of higher personal income, there is an ever-increasing demand for more psychological medical service suppliers with higher service standards. China, as a nation with a huge population and lack of such qualified suppliers, is in urgent need of improvement in higher education for psychological medicine.

Another thing worth mentioning is the importance of foreign language learning for medical students, with a view to improving their competitiveness for potential medical service provision in the international market.

Recommendations for negotiators

Reduction or elimination of restrictive outside factors to trade in medical services can be effected through international bilateral and multilateral negotiations and after the General Agreement on Trade in Services comes into force on January 1 1995 and China resumes its membership of GATT, Chinese negotiators will play a more important role in facilitating medical service exports from China.

Health insurance

Considering the impediment that the current health insurance policy represents to international trade in medical services, we suggest that one objective of negotiation should be to extend health insurance covering the policy buyer's expenses for medical services provided at home to medical services provided in the territory of other contracting parties. Such reform will financially support patients' choice of receiving medical services abroad and thus enlarge the volume of international trade in medical services.

Negotiating strategies

Strategies adopted by Chinese negotiators should aim at benefiting from the comparative advantages in this service sector, improving China's position in international competition and increasing medical service exports from China.

China's offers regarding progressive liberalization of medical service imports. Because of the underdevelopment of China's medical service sector in technology, equipment, management and marketing, national hospitals are unable to cope with competition from foreign medical service suppliers on equal conditions. The inflow of too great a number of mature foreign competitors will have irrevocable detrimental effects on domestic enterprises. These basic conditions force Chinese negotiators to take a seemingly protective stand on matters related to medical service imports. Therefore, the practicable mode for medical service imports to China will be the establishment of joint ventures. The existence of wholly-owned foreign hospitals in China at present is not a suitable measure, bearing in mind the current free medical service policy and relatively low personal income in China.

China's requests regarding progressive liberalization of medical service exports. Because China is rich in qualified medical professional with extensive clinical experience, including doctors in both modern medicine and traditional Chinese medicine, and nurses, negotiations should focus on freer conditions for the export of Chinese medical professionals. Thus the negotiators should endeavour to negotiate more favourable conditions in relation to the principles of market access, national treatment and certification of qualification: For example, negotiations should target the qualification and licensing of Chinese doctors by other contracting parties, and the further opening up of the market to Chinese nurses by setting up testing centres in China for administration of the CGFNS examination.

Recommendations for Chinese medical-service supplying organizations

Hospitals and clinics are the major direct supplying organizations of medical services for foreign service consumers and will also be the direct

beneficiaries of such service exports. To overcome the trade barriers at home and abroad and to promote medical service exports, these organizations should tap their own export potentials and improve medical service quality by taking an active part in scientific research, expanding the co-operation scope of international exchange in technologies, sciences and experts, and furthering the use of telecommunications services and informatics.

Study of traditional Chinese medicine

More scientific research should be conducted to reestablish traditional Chinese medicine as a science based on controlled experiments and systematic studies, so as to improve the image of traditional Chinese medicine in foreigners' eyes. As mentioned above, the atmosphere of mystery surrounding traditional Chinese medicine, which stems from its unique perceptions of pathology and its unique clinical techniques based on experience, has endangered suspicion towards it among foreigners. The suspicion can be dispelled only in two ways: first, by foreign patients using traditional Chinese medicine for the sake of its curative effects, and secondly, by Chinese research institutions and hospitals taking up the responsibility of giving it a new and more "scientific" explanation in the logic of modern science. There have been some efforts to tackle this problem, such as pharmaceutic analysis of the composition of the traditional medicine prescribed, physiological explanation for the therapeutic process of its clinical techniques, and expansion of combined clinical treatment with traditional medicine and modern medical science. We believe that the scientific re-establishment of traditional Chinese medicine will not only improve China's position in medical service exports, but also help to develop its traditional medicine.

Expansion of international exchange

There are only a few Chinese hospitals that have their own channels for international technology, information and personnel exchange, and in inland areas the lack of proper channels for such exchange is more serious. In such isolation, it is rarely possible to expect improvement of the professional quality of faculties, or knowledge of the current state of modern medical sciences and acquisition of necessary information to upgrade the technological level.

In our view, measures should be taken to reduce such isolation promptly and should include those set out below.

Use of telecommunications services and informatics. Computer networks need to be set up inside hospitals, among domestic hospitals, and even between Chinese hospitals and foreign medical and health-care organizations if practicable. Through the establishment use of open computerized medical databases and rapid transmission of medical data through the networks, even an inland hospital can at least be kept abreast of new developments in the field of

medical sciences, thus facilitating the daily diagnosis process and improving its research capacity.

Continuation of existing academic and personnel exchanges with appropriate foreign organizations. Cooperation among national hospitals and between national hospitals and foreign hospitals should be expanded by way of establishment of joint ventures, which can help accelerate the renewal process of outdated equipment and techniques.

Paying attention to information on international demand for medical services. In China, medical service export channels depend to a large extent on the efforts of state labour export companies and the intergovernmental agreements on labour export. Apart from that, hospitals merely wait for the arrival of foreign patients. But in the near future, hospitals themselves will play a more active role in such service exports by searching themselves for potential export markets. If hospitals choose service exports as one of their development objectives, they must begin now to advertise themselves in the international service market and prepare for establishing overseas subsidiaries, or opening up channels to dispatch professionals abroad.

Improvement of service quality. In a market mature for free competition, quality of commodities often means the survival of such commodities. Medical services, in a broad sense, are also a type of commodity and their quality means much more than merely their presence in the market, because they directly concern the health and lives of the consumers. Whichever of the four possible methods for trade in services is used to supply Chinese medical services, high service quality is the essential requirement.

As for Chinese state hospitals, improvement of service quality is not only the requirement for promotion of their potential service exports, but also for a better position in the domestic service market.

In the past forty years, many state hospitals in China have been spoilt under the mechanism of a planned economy by their monopoly positions in providing such services. Few of them have paid enough attention to efficiency, service standard, post-school vocational training and actual demand from the patients, in other words, the whole range of aspects that the words "service quality" cover.

But things are different now. There is a trend in China's economic reform to turn from a plan-dominated economy to a socialist market economy. And the Government is determined to adopt international practices as national standards in more and more vocations. State hospitals are losing their policy-favoured positions in the domestic market, where competition is growing stronger, not only among state hospitals but also between public hospitals and the private medical service suppliers or Chinese-foreign joint ventures. It is expected that they will be left totally to fend for themselves in a few years' time. With this trend, hospitals will be forced to improve their service quality as soon as possible.

Moreover, with the orientation of medical service exports, the hospitals should make more effort and require higher service quality standards of themselves than are needed in the domestic market. The additional measures should include training their own teams of professionals, who can provide medical services to foreign consumers, up to international standards, introducing state-of-the-art medical equipment and techniques, and moving towards meeting the requirements of international service standards.