

10. THE CASE OF THE MEXICO-UNITED STATES BORDER AREA

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In general, the increasing movement of people has had an important effect on trade in health services. Added to this, the concept of the mobile user - immobile supplier can no longer be confined to wealthy persons in developing countries seeking specialized treatment in developed countries. Worldwide restructuring in the health sector due to the high costs of medical services, particularly in developed countries, has resulted in the creation of an international health-care market. International trade in health services in developing countries has appeared on the scene not only as a way to increase their revenues but also as a way to strengthen and upgrade their national health services. The high content of labour, capital and skills within medical services provides an opportunity for developing countries, as observed in the 1989 OECD report¹, provided that they can maintain the necessary quality levels. Fortunately for the health industry, due to its universal knowledge base, and despite differences in certification and licensing procedures, the quality of medical services is becoming very similar in almost all countries, with cost being the major difference.

TRADE IN HEALTH SERVICES BETWEEN MEXICO AND THE UNITED STATES

The use of Mexican medical services by United States Nationals cannot be considered a new issue. For a long time, Americans have been retiring to some of Mexico's most attractive towns such as Guadalajara and San Miguel de Allende. Once there, they make intensive use of private medical services either by means of private health policies, directly attending private clinics and

¹ OECD, *Trade in Services and Developing Countries*. Paris, 1989.

hospitals, or in some cases, enrolling into the Mexican public health service (the *Instituto Mexicano del Seguro Social* (IMSS) or Mexican Institute of Social Security) by paying a special fee. An aspect of this trend which has become more interesting and obvious at present, is the use of medical services by Americans at Mexican border towns. Despite the widespread idea that medical services in Mexico are of low quality, in general Americans are travelling south of the border seeking affordable health services and low-cost medicine, finding besides that the quality levels are also acceptable.

Three main groups of users of Mexican private medical services at the border have been identified to date:

- the Spanish-speaking Latino-origin Americans (*Chicanos, Pochos* and *Emigrados*) living relatively close to the border, whose cultural and family ties keep them returning to Mexican towns;
- elderly Americans, who seek a good climate, cheap medicine and affordable long-term health care; and
- a group that can be considered as "marginally ill", this is to say, Americans suffering from leukaemia, cancer, AIDS, diabetes, etc., seeking alternative health treatment or medicine that is not readily available in the United States, or has been restricted or banned.

The place of origin, and distance travelled by the two last groups varies. Some people come from as far as Canada². In all these cases, they prefer border towns in order to keep close to the United States, for various reasons. Interestingly, this issue (geographic proximity) has also become an important condition for trade in health services.

In general, it can be said that this development has two main causes: the high cost of medical services in the United States, and the differences in control over prescriptions and medicines between the two countries. It is common knowledge that in terms of expenditure, the United States is the largest single health-care market in the world. In 1993, expenditure totalled US\$ 903.3 billion (14 percent of gross domestic product - GDP- or US\$ 3,380.00 per capita). And expenditures for 1995 were expected to total US\$ 1.1 trillion (15.6 percent of GDP or \$US\$ 4,050.00)³. In the context of the United States, an increasing number of general physicians and specialists, the availability of new medical technologies, and expanding health insurance linked to a fee-for-service payment, are together generating a rapidly growing demand for expensive tests, procedures and treatments⁴. The cost question ensures that not everyone will have the means to pay for medical services, including people in the United

² Data from *Hospital Ernesto Contreras* located in the city of Tijuana, December 1994.

³ *National Health Statistics*, 1994.

⁴ World Bank, *World Development Report 1993*. New York, Oxford University Press, 1993. p. 4.

States. Although there is a public American health-care system, not all medical services are covered and, in the end, people have to pay some fees for the services. Instead of spending their savings on expensive medical services, many Americans prefer to find other ways to obtain the same services at affordable prices. For some of them, travelling to Mexico has become a viable solution. In order to do this, Americans must weigh up several factors such as the cost of travel and of continuing communication; the problems and inconvenience of not being able to meet the supplier on short notice when something goes wrong; and the possible savings associated with the lower price or the type of quality of the medical service needed⁵.

On arrival at some of the largest Mexican border towns, they find that due to proximity to the United States, travelling distances are not a burden, there are no long waiting periods, the quality of services is acceptable, and costs are lower.

The fact that Americans are using medical services in Mexico opens up the argument that Mexico might have a comparative advantage over the United States in the provision of specific medical services. This capacity to sell services to foreigners includes factors such as quality of the services, lower costs, language or cultural ties and geographic proximity.

⁵ G. Feketekuty, *International Trade in Services: An Overview and Blueprint for Negotiations*. Cambridge, Mass., Ballinger Publishing Company, 1988. p. 16.

DEFINING THE MEXICO-UNITED STATES BORDER AREA

The Mexico-United States border area is mostly a dry desert zone, interspersed with forest areas and irrigated farmlands. Fourteen pairs of cities exist along 2,500 kilometres (some 1,550 miles), from the Pacific Ocean to the Gulf of Mexico. This is to say that for each city on the American side of the border, there is another one on the Mexican side (which is why they are called "sister cities"). In the past decade the population along the border has doubled to approximately 9.5 millions, and at the same time the border has become the one with the highest number of annual crossings - more than 200 million in 1990⁶. American law requires Mexicans to have either a valid visa or a border crossing card issued by the United States Government to enter legally into the country. Although according to Mexican law, Americans entering Mexico are required to have a permit, border city immigration officers do not ask them for such permits. Therefore access to Mexican border towns is an easy process.

Despite the border's length, the majority of the population tends to concentrate in only six pairs of these cities, starting from the Pacific Ocean: Tijuana-San Diego; Mexicali-Calexico; Ciudad Juarez-El Paso; Nuevo Laredo-Laredo; Reynosa-Mcallen; and Matamoros-Brownsville in the Gulf of Mexico. The relation between these pairs of cities has been continuous and intense.

Although many people argue that this relationship relates more to dependency issues (Mexican border towns depending on American border towns), this cannot always be demonstrated as such, especially with respect to medical services. People on both sides of the border cross legally from one place to the other, seeking features, services and/or goods they are not able to find in their home town. Commuting from one town to the other over the border to work, shop or for leisure purposes is nowadays common and natural. Despite the fact that illegal Mexican migration has become a serious concern for the United States lately, the majority of the border population are legal commuters. In the same way that Americans travel to Mexico for medical services, a small number of Mexican nationals who have the means to pay also make legal trips to the United States for the similar purposes, seeking those services that are not available or have fewer complication risks than at home. According to a study conducted on the border city of Tijuana in 1994, in an average month there were 300,000 border crossings for this purpose (seeking medical services). Of these crossings, 50,000 were visits to San Diego (United States), while 250,000 were visits to Tijuana (Mexico)⁷. Given this situation, it would be difficult and risky to conclude that the relationship between border towns is a dependent one. In the majority of cases one can find a complementary relationship, relating more to division of labour.

⁶ K. Kjoos, The Need for a Coordinate Response to Growth Impacts in the United States - Mexican Border Region. Draft working paper prepared for United States Information Agency Speaking Tour, Mexico, March 1992. p. 2.

⁷ *San Diego Dialogue Report*, 1994. p. 30.

THE PROVISION OF HEALTH IN BOTH COUNTRIES

Health and medical care services are organized differently in the two countries. While in the United States the eligibility criteria prevent many people from obtaining the services they need (services may be available but people do not have access to them, either because they are not eligible or because they cannot pay for them), in Mexico people have access to services. Unfortunately, services are not always available, that is to say, physically present.

In Mexico health and medical care are provided together in the public system, whereas in the United States the public health system relates to public health activities, and medical care services are provided separately, especially for the poor. The Mexican system is a public-based medical-care system with the Secretariat of Health (*Secretaria de Salud*) providing general health and medical care for those without rights to the social insurance system, or those who cannot afford or do not have access to private physicians. The primary provider of social insurance services is the IMSS and the ISSSTE (Institute of Social Security Services for Civil Workers). Services also exist for the armed forces, and for petroleum and railroad workers. Despite the existence of these state health-care services, a large number of people cannot obtain access to any private or public health service. This is the case of rural areas, where access and infrastructure become difficult and expensive. The National Programme of Health estimated in 1983 that 14 million Mexicans had no access to medical services. And in 1986, after several efforts, 12 percent of the population (roughly 9.6 million) had no access to any form of medical service⁸. Because the government is restructuring the health sector and continually cutting funds to the public sector, the provision of health services by the private sector has been playing an important role, filling the gaps left by the public sector. Even so, some of the most well-known physicians and some of the best-equipped hospitals and medical centres in the country are still within the public sector. Private hospitals and clinics are often owned and administered by groups of physicians and in only very few cases are equipped with sophisticated technology. Because only a small amount of equipment is manufactured in Mexico (such as intravenous solutions, plastic parts and some ultrasound equipment, but no major medical equipment)⁹, many physicians buy their own equipment from the United States at market rates. The main obstacle is that most equipment tends to be extremely expensive when bought new, even after elimination of import tariffs after the North America Free Trade Agreement (NAFTA) came into operation between Canada, Mexico and the United States

⁸ C. Sole, The Mexican Health Care System, in D. Warner, K. Reed (Eds.), *Health Care Across the Border: The Experience of U.S. Citizens in Mexico*. United States-Mexican Policy Report No.4, LBJ School of Public Affairs. Austin, University of Texas, 1993. p. 79.

⁹ Opportunities for United States participation in the expansion of the Mexican health care system. Project Identification Mission, prepared for the United States Trade and Development Agency, 1994. p. 10.

in 1994. Therefore many hospitals and clinics prefer to buy secondhand or refurbished equipment from local suppliers or directly from American suppliers¹⁰.

Nevertheless, Mexico's imports of medical equipment in 1993 rose to US\$ 500 million, double the amount of its 1989 imports of medical equipment¹¹, thus demonstrating that, in general, the health sector is beginning to improve its facilities. And the situation will tend to change as, under NAFTA, tariffs for goods classified in the "A" category, including medical equipment, were eliminated as of 1 January, 1994. This will open the market for United States vendors of medical equipment in Mexico.

Private medicine is considered in Mexico as one of the most profitable economic activities, with salaries varying according to the scope of the practice and location. They can vary from between US\$ 20,000 and US\$ 30,000, and up to US\$ 200,000 or more per annum. The average tends to be around US\$ 50,000. Specialists probably earn an average of US\$ 100,000 to US\$ 150,000 per annum¹². Most of the best hospitals and clinics are concentrated in some of the biggest cities in the country (Mexico City, Guadalajara and Monterrey). Recently several investors have started developing and upgrading health care centres along the border (specially in the largest border towns) in order to capture American demand for medical services. And regardless of the high costs of buying and importing equipment from the United States, recent information shows that a group of Mexican companies from Sonora placed up to US\$ 100,000 in orders at Temple Medical of Arizona¹³. The Mexican public health sector has also made efforts directed at capturing international demand. Recent information indicates that the IMSS offered Mexican migrants living in the United States the opportunity to enrol members of their family living in Mexico by paying a special fee. This will allow them to have full health coverage, including pharmaceuticals, at a fairly low cost. This health care scheme is to be available through all Mexican diplomatic representations in the United States.

In the United States, the health and medical care system is based primarily on private practice, and fee-for-service with public health services. These are provided by the public health system of city, county or regional public health department clinics. And where present, federal-funded community health centres provide care for those unable to afford private care. Hospitals are generally "for-profit" with few large public hospitals available in the border area. People pay

¹⁰ A new C. A. T. scanner sells for US\$ 45,000, while a refurbished one can be obtained for US\$ 15,000. D. Beachy, Free Trade: Medical Industry Looking South of the Border. In *The Houston Chronicle*, May 29 1994. p. 36.

¹¹ Project Identification Mission, 1994, p. 36.

¹² E. Mendoza, R. Rangel, Mexican System, a Mix of Public and Private Providers. *Physician Executive Magazine*, Vol. 20, No. 6. p. 25.

¹³ L. A. Mitchel, Health Care Revolution in Mexico Opens the Door. *Arizona Business Gazette*, 21 April 1994. p. 42.

for care through public insurance programmes such as Medicare and Medicaid which serve the indigent and the elderly respectively (eligibility and coverage being their main limitations), or through private health insurance obtained by individuals and as "health benefits" from employers, or from their own pockets. Even with health insurance plans, people usually have to pay some amount themselves for care.

Medicaid is a joint federal-state programme for health care assistance for the low income population¹⁴, and its eligibility is based on age and income level. In order to qualify for Medicaid benefits, an individual over 65 generally must have no more than US\$ 1,900 in assets, not including his or her house. On the other hand, Medicare is an insurance programme for health care for the aged (over 65). People are enrolled automatically when they reach the age of 65. Medicare is divided in two parts: part A covers services at participating hospitals and limited skilled nursing; Part B is a voluntary programme that pays for 80 percent of customary services at reasonable charges¹⁵. Although coverage is wide, Medicare does not cover dental work or outpatient pharmaceuticals. The majority of these services are highly used by the increasingly ageing American population. The elderly consume almost 40 percent of all health care¹⁶. Life expectancy rate in the United States is among the highest in the world. It is expected that by the year 2050, an estimated 68 million persons (roughly 22 percent of the population) will be over 65 years old, while those over 85 will increase eight times to account for 5 percent of the total population¹⁷. Together with the increase of the ageing population, there has been an increase in the number of elderly people who have substantial incomes.

Despite the huge United States health expenditures, there are still significant numbers of medically underserved people, and some rural populations with very little or no access to health services. Many Americans also lack health insurance¹⁸. On the United States side of the border there is high

¹⁴ Included within this category are: the aged, blind, and/or disabled families with dependent children, pregnant women and children, and people whose income and/or resources are in excess of the standard for categorically needy coverage. S. Watson, Medicare and Medicaid. In D. Warner, K. Reed, op. cit. p.170.

¹⁵ For part B, the enrollee pays a premium of about US\$ 46.00 a month, and Medicare covers 80 percent of the determined fee. Part B covers physician services, medical services and supplies, home health-care services, outpatient hospitals services, outpatient hospital therapy, laboratory and diagnostic tests, x rays, radiation therapy, home dialysis supplies and equipment, physical and speech therapy, and ambulance service. S. Watson, op. cit. p. 173.

¹⁶ V. Fuchs, *The Service Economy*. New York, National Bureau of Economic Research, 1993. p. 14.

¹⁷ D. Warner, Mexican provision of health and human services to America citizens: barriers and opportunities. *Public Affairs Comment Magazine*, Vol. XXXVI, No.1, p. 4.

¹⁸ According to a 1994 report, nine million Americans were without health insurance from January through September 1990, and sixty million had no coverage for at least one month during that time. *Modern Health Care*, 1994, p. 2.

population contrast. Although some of the richest states like California and Texas are located within this region, one of the largest concentrations of medically indigent people also lives in this area¹⁹. The Latin-origin population is increasing, as well as their life expectancy rates, in many of the American border cities. A recent study reported that the total population of the border states was nearly 52 million residents, out of which 25 percent were of Latin origin (60 percent of all the Latino population in the country)²⁰. Although migration has become a nationwide concern for Americans, and their migration controls continue to tighten, several United States insurance companies have been benefiting from it. Because salaries in Mexico are lower, some insurance companies have developed health plans specially targeted at the Latin-origin population, offering up to 100 percent coverage if medical services are consumed in Mexico. And, recently, new organizations called preferred provider organizations and health management organizations among others, are making direct contact with Mexican health providers, arranging fixed prices per service in order to include them in their health policies. Cost and language have become a key element of the success of some of these new health organizations.

¹⁹ *Border Health Report*, 1993, p. 7.

²⁰ D. Hayes-Bautista, *Workforce Issues and Options in the Border States*, Paper presented at the Border Health Working Group Session held in San Diego, California, 1996.

EXISTING STUDIES ON THE PROVISION OF HEALTH SERVICES IN THE BORDER AREA

Many studies on medical services along the United States-Mexico border have been conducted by different organizations. Interestingly, literature on this topic began to increase in the 1990s mainly because of two developments: the increase in the Latin-origin population in American border towns, and the opening of the Mexican market for investment as a direct result of NAFTA. These two events produced different reactions in the literature, from studies concerned with the control and/or eradication of transmissible diseases menacing the United States through the Mexican border, to marketing studies seeking investment opportunities for the United States in the Mexican health market. All these studies show different approaches to the existing situation with respect to health in the border area.

Up to now, thirty-seven studies have been identified, four of them conducted between 1986 and 1989, and the rest between 1990 and 1996. Thirty-four of the studies have been conducted by American institutions and organizations, two by Mexican institutions, and only one by researchers from both countries. This shows how little attention has been paid on the Mexican side of the border to this new development. The information provided by the studies can be organized into six main groups. There is a group of studies concerned with health status, and the control and/or eradication of transmissible diseases, concluding with the need to devise and create a binational health programme to deal with such issues. Another group of studies covers migration control issues and, to some extent, have xenophobic implications, although they are unable to demonstrate that Mexican indigents are becoming a burden to the American public health sector. A third group of studies concentrates on criticizing the shortcomings of the American health system. A fourth group dwells on the tendency of Americans to use Mexican health services along the border, arriving at the conclusion that people do so because all the necessary elements are present. A fifth group takes into consideration the possibilities of using the Mexican health system as a way to reduce United States expenditure on health. And very recently (coinciding with NAFTA coming into operation), a sixth group deals with marketing studies on American opportunities to invest in the private health sector in Mexico as a way to capture some of the money spent on health by Americans while in Mexico.

It is interesting to see that, although almost all studies acknowledge that Americans travel to Mexico for medical services, only nine actually see it as a new trend. It is true that the studies dealing with American investment opportunities and the reduction of American health expenditures are also aware of this trend, but, ultimately, they focus on different tasks. Seen from a different perspective, these efforts can be understood as an exercise to foster international trade in medical services between Mexico and the United States.

TRADING OPPORTUNITIES AND BARRIERS

Despite the fact that existing studies on trade along the Mexico-United States border were not intended to seek elements of comparative advantage, they provide information that can be interpreted in that light. Elements such as the presence of skilled physicians, dentists and nurses, the low cost of medical services and pharmaceuticals, better personal treatment, good quality services, the lack of long waiting periods, easy access and infrastructure, proximity to the United States, and easy border crossings to Mexico all translate into comparative advantages.

The increasing number of United States nationals retiring to live in Mexican border cities, or travelling from the United States to Mexican border towns for various reasons, and the increasing number who seek Mexican medical and dental services and pharmaceuticals are related to demand conditions.

The proximity and presence of United States suppliers of medical equipment (either new or refurbished), and the supply of (low cost) Mexican pharmaceuticals, are related to associated support industries.

The rising cost of medical services in the United States; the poor medical coverage of Medicare programmes, the unaffordability of health insurance programmes for a large part of the population, differences in salaries and in control over prescriptions and medicines between the two countries, and the devaluation of the Mexican peso, are all related to chance.

In general it can be said that, besides the advantage of geographical location, the border region also has a development potential for international trade in medical services. In almost all the existing studies, the medical services mostly used by Americans were those making direct use of physicians' and nurses' time (general consultation, therapy and minor surgery). This fact can be explained by two factors: physicians' salaries in Mexico are lower, and the quality of general medical services is acceptable according to United States standards. Considering that medical services consumed by Americans fall into the realm of "labour-intensive and skill-intensive" activities, it can be said that Mexico has a comparative advantage over the United States in the provision of these medical services. Thus, opportunities for trade exist in those areas.

With respect to the modes of trade, the movement of consumers, in the shape of movement of patients, is the most common one, although recently other modes - the movement of suppliers, commercial presence in the form of affiliates or joint ventures, and telemedicine - are beginning to appear at some of the larger border cities such as Tijuana and Mexicali. The movement of personnel (mainly physicians and nurses) is not freely allowed. The free movement of physicians and paramedics (mainly from the United States to Mexico) is allowed only upon request and in extreme situations (flooding, earthquakes, etc.). It must be clarified that NAFTA does not include, among the professionals mentioned in the agreement, the free movement of physicians. According to NAFTA, professionals willing to work abroad should comply with

all the necessary regulations stipulated by the country in which the professional wants to work²¹.

There are certain mechanisms that could be considered as obstacles or barriers to trade. For example, certification and licensing procedures are different in both countries; this may be one of the first obstacles to deal with. In Mexico, licensing is on a national basis, granted by the Secretariat of Health. This allows physicians to practise in any state within the country. In the United States, physicians must comply with state regulations, and these vary from state to state. Therefore, one of the first objectives should be to arrive at an agreement with respect to the type and quality of the services offered to American nationals in the Mexican border area. Within NAFTA this task is deemed to be carried out by local medical associations at the state level on both sides of the border, although they have not done so yet. Professional associations become very important in this event, for they are the ones which have to determine all the aspects related to issues of quality and control.

Certainly an important factor to cover will be the reimbursement of treatment costs by insurance companies as well as the question of malpractice insurance for Mexican establishments and/or for individual medical providers.

A number of common restrictions and controls will also need to be worked out. For example, restrictions should be imposed on the type of research activities to be conducted in alternative care clinics, often partly owned by United States nationals. Regulations concerning prescriptions and pharmaceuticals need to be harmonized. Environmental aspects of disposal of hospital residues must also be taken into consideration.

Other issues to consider are the possible social impact that the development of trade in health services can have on Mexican border towns. Laws, codes and penalties should be designed and implemented in order to prevent Mexican health facilities from refusing health services to Mexicans in order to ensure a place for Americans. A disproportionate increase in the cost of private medical services may also occur as a result of trade, preventing access to them by the local population.

Mexican border towns in general are not fully prepared to deal with international trade in health services. Some of the largest border cities such as Tijuana, Mexicali and Juarez have considerable infrastructure limitations, and existing conditions need to be improved first. Coincidentally, local planning departments tend to be more concerned with developing land for assembly plants (or *maquiladoras*) than with other types of trade.

CONCLUSIONS

The provision of health is different in Mexico and in the United States. In both cases, there are shortcomings that, to some extent, are being covered by

²¹ NAFTA, 1992, Ch. XII.

the private sector. Interestingly, and due to proximity, some of the gaps within the American health systems are being covered by the Mexican private health sector, in this way opening opportunities for trade.

Until now neither government has played a major role in the development of international trade in this sector. Therefore the only issues that can be related to governmental interventions are the ones concerned with telemedicine (an issue that the Mexican Government has seen as a way of delivering medical services to remote areas), and with border-crossing facilities, a policy that the Mexican Government has seen as important because of the influx of tourists.

Despite the fact that UNCTAD has been analysing trade in services since 1985, it was not until quite recently - UNCTAD 1997- that the topic was seen as advantageous for both developed and developing countries. It may be said that, hitherto, neither Mexico nor the United States has realized the full potential of developing international trade in health services between the two countries. The Mexican Government has not been aware of it. The United States Government is beginning to realize its importance, mainly as a way to reduce its health expenditure. The only sector to realize its potential has been the United States private health insurance.

If international trade in health services is to be developed, more in-depth studies need to be conducted in order to identify more precisely the type and extent of the demand for Mexican medical services. There is a need to monitor the behaviour of this demand, its trends and shifts, in order to devise specific trade schemes. But, most of all, there is a need to conduct binational meetings dealing with this topic. Up to now, meetings have dealt with health in general and not international trade. Furthermore, there is a great need for sufficient evidence in order to convince local governments of the importance of this sector and the potential benefits of promoting international trade.

11. THE CASE OF BRAZIL

Simonetta Zarrilli¹

I INTRODUCTION

According to the 1988 Constitution of Brazil, health care is an obligation for the State and a right for the citizens (Article 196). Therefore, since 1988 the health care system has been universalized and covers the entire Brazilian population in both urban and rural areas (Sistema Único de Saúde - SUS). The Federal Government bears more than 70 per cent of the global costs of the public health system, the States account for around 15 per cent, while the municipalities bear about 12 per cent. Since the 1980s, however, the trend has been towards an increase in the contributions of municipalities and a decrease in Federal contributions. The main source of revenue to finance the system is social contributions (Orçamento da Seguridade Social) and tax revenues. The latter are playing an increasingly crucial role, while social contributions are being devoted more to supporting pension funds than the health system.

In 1996 public health expenditures (including contributions at federal, state and municipality level) per capita in Brazil were around US\$120, while global health expenditures (public sector plus private initiatives) were around US\$ 300 per capita, corresponding to 3.5 per cent of GDP. In 1995 the budget of the Ministry of Health amounted to US\$ 15 billion (R\$ 15.8 billion) which

¹ This study is based on interviews carried out in São Paulo, Brasília and Rio de Janeiro. The author wishes to express her thanks to (in São Paulo) José Henrique Germann Ferreira, Albert Einstein Hospital; Gonzalo Vecina Neto, Hospital of the Clinics; José Manuel Ferreira, INCOR; Luiz Plinio Moraes de Toledo, Assunção Hospital; José da Rocha Carneiro, Health Institute of São Paulo; Edmundo Castilho, UNIMED; (in Brasília) Ernesto Otto Rubarth, Ministry of Health; Mario Marconini, Ministry of Finance; Armando Lopez Scavino, João Baptista Risi, Waldyr Mendes Arcoverde and José Paranaguá de Santana, Pan American Health Organization; Sérgio Piola, IPEA; (in Rio de Janeiro) José Roberto Ferreira, Fundação Osvaldo Cruz; Luiz Tavares Pereira Filho, Bradesco Seguros; Ivo Pitanguy, Clínica Pitanguy; Marilena Martins Pereira, São Vicente Hospital. The author wishes also to thank Abril Editor for the consultation of the DEDOC archives.

fell to US\$ 13.6 billion (R\$ 14.1 billion) in 1996 and rose to US\$ 18.7 billion (R\$ 20.2 billion) in 1997. Brazil is among the countries in Latin America with the lowest investment rate in the health sector. In 1996 Argentina's global expenditure in the health sector reached US\$ 600 per capita, corresponding to approximately 6 per cent of the GDP². However, considering that public health expenditure per capita in Brazil was as low as US\$ 88 in 1993, considerable, though not sufficient, improvement has taken place.

In order to increase the amount of resources available to the public health system, a tax applying to all bank transactions (*Contribuição Provisória Sobre Movimentação Financeira - CPMF*) was established in January 1997. The tax, which corresponds to 0.20 per cent of all bank transactions, was supposed to remain in force for 13 months only. However, its application has been extended until the end of 1998. In 1997 the CPMF raised revenues of around US\$ 6.4 billion (R\$ 6.9 billion), which amounted to 6.1 per cent of total tax revenues and represented 30 per cent of the federal health budget³. The tax is not expected to solve the problem of lack of sufficient resources for the public health system, but only to provide temporary relief. Doubts have been expressed, however, regarding the actual destination of the revenues collected through the CPMF: some have speculated that revenues were also used for financing activities outside the health sector, while others claim that CPMF revenues were used to replace other federal contributions instead of being added to them.

The public health system is at present managed by three different authorities: (i) the Federal Government - which is in charge of policy development and planning at the federal level, scientific and technological development, rule setting and coordination and cooperation with the states and the municipalities; (ii) the states - which are responsible for policy development and planning at state level, technical and financial cooperation with the municipalities and coordination of their activities, and health education; and (iii) the municipalities - which are in charge of policy development and planning at local level, implementation of health activities, evaluation and control of health services, and health education at local level. The municipalities are expected, however, to assume a more significant role in the actual management of health services, with a consequent streamlining of operations and cost savings. On 1 January 1998, a new plan was put into action (*Piso da Atenção Básica à Saúde - PAB*). Under it, municipalities will receive from the Federal Government US\$ 8.3 (R\$ 10) per inhabitant to provide basic health services such as vaccinations and ambulatory consultations (the former system was based on ex-post reimbursement). This will allow municipalities to plan their health services better, to enhance controls and, it is hoped, to reduce fraud⁴.

² "Gasto per capita da saúde cai 7,6% em 96". *Folha de São Paulo*, 6 January 1997.

³ Source: Secretaria da Receita Federal.

⁴ "Em operação o Plano de Atenção Básica à Saúde". *Gazeta Mercantil*, 13 January 1998.

In general, the Brazilian public health system is regarded as inadequate to fulfil the role it has been given by the Constitution, mainly because of lack of adequate financing. Several factors have contributed to make the resources available insufficient, namely the emergence of new diseases - such as AIDS - which need long and expensive treatments; the re-emergence of diseases - such as cholera - which were supposed to have been eradicated; the persistence of other diseases - such as malaria, yellow fever and tuberculosis; longer life expectancy; the ageing of the population (in 1970 only 5 per cent of the population were more than 60 years' old; at present 11 per cent of the population are over 60⁵); the so-called "globalization of illness" due to domestic and international migration; the extensive and cumulative use of technology; and the need to face serious sanitation problems. The fact that the system has become universal, while undoubtedly representing a positive step towards the achievement of the goals of the 1988 Constitution, has placed a further burden on the public health budget, thus contributing to the deterioration of the system.

Along with insufficient financing, however, the problem of lack of good management and of appropriate controls is increasingly mentioned as one of the main reasons for the collapse of the public health system. An audit carried out in 1997 by the Ministry of Health showed that at least US\$ 557 million (R\$ 600 million) belonging to the federal health budget go missing every year. Most states seem to be unable to supervise the activities carried out by public hospitals and ambulatories and to ensure compliance with the rules laid down at federal level to prevent abuses⁶.

Parallel to the deterioration of the public health system, a private health system has emerged, which at present covers around 41 million people - corresponding to 25.6 per cent of the Brazilian population - and which raises about US\$ 13.3 billion per year (R\$ 16 billion), corresponding to 1.6 per cent of GDP. The private sector has expanded rapidly: the number of people who have joined a private health scheme/insurance increased by around 38 per cent between 1987 and 1995. According to some estimates, by the year 2000, 57 million people are expected to be members of a private health scheme/insurance. The disparity between the public and private sectors is striking: the private sector - which has to serve only one quarter of the population - can offer around 4,300 hospitals, more than 370,000 beds and 120,000 doctors. On the other hand, the public service - which has to provide full health care for the remaining three quarters of the population and for those under private health plans/insurances for

⁵Source: Instituto Brasileiro de Economia da Fundação Gétulio Varga, October 1997.

⁶"Governo muda saúde em ano de campanha eleitoral". *Jornal do Brasil*, 28 December 1997.

treatment which is not covered by those schemes - has fewer than 7,000 hospitals, around 565,000 beds and 70,000 doctors⁷.

The private health system includes several types of arrangement: health maintenance organizations (HMOs) where the patients have access to a certain number of hospitals, clinics and doctors which are members of the HMO (medicina de grupo); health cooperatives (such as UNIMED); self-management systems, which provide health care to the employees of large firms (Auto gestão); administrations, which are health systems directly managed by large firms (Administração), and health insurances. These different systems have approximately the following shares of the Brazilian private health market: HMOs around 42 per cent; health cooperatives around 25 per cent; self-management systems around 17 per cent; administrations around 5 per cent; and health insurances around 11 per cent. Among the different systems, health insurances are enjoying particularly rapid growth⁸.

Private health plans (excluding insurances) are, for the time being, subject to virtually no rules, so that, for example, the minimum coverage of the health plans, the maximum premium increase which can be charged according to the age of the patient, the minimum capital necessary to start activity, the places where new hospitals and clinics can be established, minimum requirements relating to the quality of the services provided and other similar crucial points are subject to no discipline at present. It is most probably because of this lack of regulation that the Brazilian Association for Consumer Protection ranks private health plans among the activities which cause the largest number of complaints. On the other hand, health insurances are subject to the general rules that apply to all kinds of insurance (e.g. economic-financial reserves amounting to 50 per cent of turnover).

However, some major changes may come about. In early 1998, Congress was discussing a draft law which, if approved, would bring many changes to the sector, the main thrust being to establish clear rules according to which private health plans should operate and to open the Brazilian market to foreign companies also in this field. The expected result would be a fairer and more competitive market⁹. However, the draft law, which was approved by the Chamber of Deputies in October 1997, has little chance of being approved by

⁷ "Setor tem 50 mil médicos a mais que o SUS". *Gazeta Mercantil*, 22 September 1997.

⁸ *Gazeta Mercantil*, 22 September 1997.

⁹ Among the main provisions included in the draft text are the following: the activity of private health plans would be strictly regulated (they would be obliged to offer a "reference plan" - plano-referência - which would cover all illnesses classified by the World Health Organization, plus three additional less expensive plans with more limited coverage). The premium increase related to the ageing of the members would be regulated and contracts would be automatically renewed. No time limitations for hospitalization would be allowed. The coverage for retirees and unemployed would also be regulated. "Em busca da cura paga". *Veja*, 22 October 1997.

the Senate. Both medical and consumer associations were lobbying, for different reasons, against the law. However, the delay in adopting and implementing appropriate rules for health plans does not seem to serve the interest of Brazilian citizens.

The relationship between the public and private health systems is somewhat disaccordant. In particular, the private sector tends to believe that the public sector is unable to fulfil its obligations of providing health care to the whole population. Therefore, it would prefer to see it concentrating on the basic health needs of the country, such as vaccinations, prevention campaigns, actions against epidemic diseases, sanitation, and provision of health care only to that segment of the population which is unable to join any private health plan. In other words, the private sector would like to see the public health system reducing its role as direct supplier of health services, while increasing that of rule-maker. In particular, most feel that there is a need for clearer rules in the market, which could ensure fair competition.

On the other hand, the public health system is very attached to the role it was given by the 1988 Constitution; therefore it is reluctant to accept privatization of the health system and commercial exploitation of health care. According to it, the privatization of health care would lead to further marginalization of the rural areas and would be of no benefit to the majority of the Brazilian population who have to rely on the public health system.

II TEMPORARY MOVEMENT OF CONSUMERS

Care of foreign patients

Despite the high quality of health treatment that a number of Brazilian hospitals can provide, the very good image that some of them have (for instance some Brazilian hospitals have already been granted the ISO 9002 certificate on quality management), and the luxury accommodation they can offer, the presence of foreign patients in Brazil is very sporadic.

Usually, foreign patients are either visitors who are in Brazil for working purposes or tourism and who happen to need health care, or foreigners who live in Brazil. The case of foreigners who go to Brazil looking for health care is rare. In most cases these patients come from other South American countries and are relatives or friends of doctors who have studied in Brazil and are still in touch with their former professors and colleagues. In other cases, foreign patients are sent to Brazil to receive health treatment which is not available in their home country. In these cases, the health insurance of the patient usually pays for the treatment. However, when the foreign insurance refuses to pay and the patient cannot afford the cost of the treatment, the SUS bears the cost.

The general lack of interest by potential foreign patients in the health care provided by Brazil stems from the fact that those hospitals which would appeal to them are usually very expensive private hospitals. In Sao Paulo, for instance, the best hospitals charge fees which are sometimes higher than those charged by

well-known hospitals in the United States. Some health insurances are even offering Brazilian patients the option of receiving health care in the United States, since in certain cases the costs of treatment in the United States and transportation are lower than the cost of the same treatment in São Paulo. Amil, an HMO, has included in its network of health institutions a number of hospitals in the United States. It is also offering, through Amil International Health Corporation (based in Miami), assistance to its Brazilian clients who choose to be treated in the United States (e.g. translation, interpretation, transportation from the airport to the hospital)¹⁰. Transmédico, another company based in Florida, was set up in 1993 also to help Brazilians who wish to obtain medical treatment in the United States¹¹. Several large hospitals in the United States are also targeting the Brazilian market by recruiting doctors and administrators who are able to speak Portuguese, by sending brochures to Brazil, and by offering preliminary consultations by fax¹².

The main reason for this situation is the lack of sufficient health infrastructure in the country: even though the number of those who can afford to pay for health treatment in a private structure is limited, it nevertheless exceeds the facilities available. Therefore, the best Brazilian hospitals can charge fees equivalent to or higher than those charged in most developed countries, knowing that they will have enough patients (in the best Brazilian hospitals the occupancy rate is around 85 per cent). Because of the high occupancy rate, in general private hospitals have not developed any strategy aimed at attracting foreign patients.

As far as the public system is concerned, the shortage of facilities for the local population has made it impossible to think of developing a strategy to attract foreign patients, even though some of the public hospitals are in a position to provide highly advanced health treatments.

There are, however, some exceptions. In Rio de Janeiro, for instance, a famous plastic surgeon attracts a substantial number of foreign patients (40 per cent of his patients are foreigners), and has greatly contributed to establishing the good reputation of Brazilian plastic surgeons in general.

Foreign students in the health profession

Some of the most prestigious Brazilian hospitals - usually those linked with the best universities - receive a number of foreign doctors, especially from other South American countries, who are usually interested in postgraduate courses. However, Brazil has never tried to make it a profitable activity: foreign

¹⁰ “Mercado global da saúde, uma realidade lá fora”. *O Globo*, 13 July 1997.

¹¹ The company helps Brazilian patients to find the right doctors and hospitals and takes care of bureaucratic formalities. It is reported that, on average, Transmédico takes care of 1000 Brazilian patients per year.

¹² “Tratamento mais barato é a nova atração do exterior”. *O Globo*, 13 July 1997.

doctors are charged at the same level as local doctors attending the same specialization courses. Doctors from Portuguese-speaking African countries usually benefit from scholarships in the framework of technical cooperation agreements.

III TEMPORARY MOVEMENT OF HEALTH PERSONNEL

Even though a number of Brazilian doctors go abroad for postgraduate qualifications (especially to the United States and some European countries), they usually return to Brazil at the end of their studies. A foreign diploma or a period of training abroad may facilitate their career and provide them with access to better working opportunities.

A specific case is the migration of Brazilian dentists to Portugal during the 1980s. This was, however, linked to particular circumstances, namely, the economic crisis that Brazil faced in the 1980s; the fact that at that time immigration laws in Portugal were quite favourable to Brazilian citizens; the shortage of dentists in the Portuguese market; the special nature of the dentistry profession in Brazil, where, unlike in Portugal, a dentist does not need to be a doctor, since the two professions are quite separate; and cultural affinities.

Brazil faces a shortage of nurses, especially highly qualified ones, therefore the phenomenon of nurses moving abroad has not occurred. On the other hand, Brazil is not attracting foreign nurses, since the working conditions and salaries are not competitive.

Foreign doctors have difficulties in establishing themselves in Brazil, since procedures for assessing the equivalency of diplomas are rather complicated. Additional conditions may be requested by the professional associations, for example, foreign health professionals have to pass very strict qualification tests. Like several other large countries, Brazil faces the problem of a shortage of health professionals in rural and remote areas, but it does not appear that this shortage will be overcome by foreign professionals.

In the framework of MERCOSUR, a committee has been established to deal with the health sector. One of the issues it is supposed to address is the free circulation of doctors among the four Member countries of the group (Argentina, Brazil, Paraguay and Uruguay). However, this seems to be a particularly difficult subject, especially since the professional associations also have their own position, which does not always coincide with the government's. Therefore it seems that the Committee is giving priority to other questions where the chance of reaching agreement is higher. In December 1997, the four countries of the group signed a framework agreement which envisages the liberalization of trade in services within the bloc, to be negotiated in successive rounds of offers (including exceptions). However, at present it is not known how health services will be handled within this context.

The same Committee is also discussing the issue of reimbursement of health treatment for citizens of a MERCOSUR country receiving health care in another country of the group. According to the proposal under discussion, an

agreement should be set up among the public health systems of the four countries, allowing citizens of one country to receive health care in another on the same conditions as at home. At the end of each year the national health systems of the four countries would calculate the costs that they have borne of providing health care to foreign citizens and, if necessary, ask for compensation. The main obstacle to implementation of this proposal is the lack of similarity among the four national health systems. On the other hand, it seems that in the framework of private health plans, in particular medical cooperatives, some initiatives are being taken to allow patients enrolled in a medical cooperative in one country to be treated in another country by a "sister" medical cooperative.

IV FOREIGN COMMERCIAL PRESENCE

Under the 1988 Constitution, foreign firms and foreign capital were not allowed in the health sector, unless there was an "interest of the Brazilian Government" or, in specific cases, as regulated by law (Article 199,3° of the Constitution and Article 52 of the Transitional Provisions).

This situation changed in May 1996, when the Minister of Finance asked the President of the Republic to open the Brazilian market to foreign capital and companies in the field of health insurance. The main justification for this request was the commitment of the Government to give consumers further protection by raising the quality of the services offered, lowering their prices and establishing a fair level of competition in the market.

As already mentioned, the private health system in Brazil has evolved in a rather particular way. While the number of people interested in participating in the private system has increased at a very fast rate, the supply of health insurances and other kinds of private health plans has not been expanding at the same speed, thereby generating lack of competition, high prices and rather inefficient management.

In May 1996, the President of the Republic authorized the opening of the market to foreign firms and capital in the field of health insurance, although it is still closed to foreign participation as far as private health plans are concerned. This means that at the moment only around 11 per cent of the private health market is open to foreign competition. The market of hospitals and clinics is also closed to foreign participation.

Since the health insurance market has been opened, around 20 transnational corporations have established themselves in Brazil, either through joint ventures or acquisitions¹³. North American insurance companies seem to be the most successful in penetrating the Brazilian market, probably because of their expertise in the sector. European insurance companies, which have less experience in the health sector, are nevertheless showing interest in the Brazilian

¹³ "Golden Cross recebe US\$ 200 mi". *Gazeta Mercantil*, 17 December 1997.

market, especially because if they start activities in the health sector they are also allowed to operate in the areas of life insurance and pension funds.

It seems that the presence of foreign insurance companies has already produced some improvement in the Brazilian market, namely, companies are already offering insurance packages which provide better coverage and are beginning to save on administrative costs. However, prices are not going down as expected. The main reason seems to be the fact that foreign insurance companies are still not allowed to invest in hospitals, clinics, and so on. Therefore they have to operate in a market characterized by a shortage of health infrastructure and very limited competition.

As mentioned above, there are no specific rules applying to health insurances: they have to follow the general rules that apply to insurances in any other field. On the other hand, until the above-mentioned draft law is approved, there are virtually no rules applying to private health schemes.

V CROSS- BORDER TRADE

The best public and private hospitals have established links with each other and with hospitals, laboratories and universities abroad. The availability of technological communication tools is of great importance in a vast country like Brazil, where there are still areas of difficult access, with very scanty health infrastructure. However, at the moment only the best and largest hospitals are able to benefit from improved communication facilities. Hence, trade through this mode of supply has not really evolved in Brazil.

VI CONCLUSION

Brazil is facing several problems in the area of health care. The public health system has not sufficient resources to meet the needs of the population, therefore it is offering a service which in most cases is not adequate from either a quantitative or a qualitative point of view. Deterioration of the public system and improvement of the economic conditions of a (limited) number of the population have led to the development of a parallel private health system. Coexistence of the two systems is not easy. However, it is clear that there is no alternative to it, since those who can afford to join a private health scheme/insurance will continue to do so, because they do not trust the public health system. On the other hand, a large proportion of the Brazilian population does not have the means to participate in any private health initiative and therefore has to rely on the services offered by the SUS. Moreover, a number of areas such as prevention campaigns, sanitation, vaccinations - which are very relevant for the country - clearly fall under the responsibility of the public health system. In 1996, the Government decided to start opening the Brazilian health market to foreign investments in order to cut costs and improve quality; for the time being, however, the opening is limited to health insurances. Discussions are

proceeding on the possible opening of the market also in the segment of private health schemes.

The challenge is, therefore, how the public and private sectors can coexist, benefiting from each other's presence, bearing in mind that, whereas for the public sector, the ultimate goal is to protect citizens' health by ensuring equitable access to health services and appropriate quality, for the private sector, the final goal is profit.

The lack of a sufficient number of hospitals in the country has led to a situation where patients in the public sector frequently have to remain on long waiting lists before receiving the treatment they need, with all the risks that this implies. Patients in the private sector, on the other hand, have to pay extremely high fees to obtain access to the private infrastructure, while the real beneficiaries of the situation seem to be the private hospitals and private health plans which operate in a situation of virtually no competition (partly owing to the fact that the Brazilian market is still closed to foreign investment in these fields) and in the absence of rules.

The fact that all the best public and private hospitals have an average occupancy rate of around 85 per cent and charge high fees makes Brazil completely unattractive to potential foreign patients. This happens despite the fact that Brazilian hospitals are among the best in South America and, in some cases, from a technological point of view they are as advanced as the well-known hospitals in Europe and the United States.

There could be an interest in exploring the option of further opening of the Brazilian market to foreign firms and capital. The presence of foreign-owned hospitals might alleviate the problem of bed shortage and increase competition in the market, resulting in a decrease in prices and an improvement in quality. More affordable prices could both make the private health structure accessible to a number of people who cannot afford it at the moment - reducing the pressure on the public health system - and attract foreign patients who, for the time being, may find prices in most developed countries more attractive than in Brazil.

The public sector would therefore also benefit from this new situation. Part of the population would shift towards the private structure, leaving more human and financial resources available for those who stayed with the public health system. Moreover, if public hospitals were under less pressure, they could sell some of their services for profit.

This phenomenon, even though on a small scale, is already occurring in some prestigious public hospitals. Even though they are public, and in principle cannot devote part of their facilities to private patients, they still do so. The fees they charge to private patients serve to pay part of the costs that cannot be borne by the traditional financing of the public system. Thus, those public hospitals can guarantee high-quality treatment, attract prestigious doctors and benefit from advanced technology, despite the very scant resources made available to them by the public health system. The challenge is to find the right balance between the number of facilities to be offered to the private sector in order to generate extra financial resources and the need to have a sufficient number of beds,

doctors, equipment and so forth, available to public patients. At the moment this balance is very difficult to find, considering the pressure under which public hospitals operate. However, the situation could improve if there were more hospitals available in the country and fewer patients who relied on the public system. At this point, public hospitals could also start thinking about a strategy to attract foreign patients to Brazil.

Future opening of the market to foreigners in the field of health schemes (as opposed to health insurances) and the setting-up of clear rules in this sector might also be beneficial to the country. Foreign competition would most likely encourage private health schemes to become more efficient and offer competitive packages, while regulations would oblige them to include fairer conditions in their proposals in regard to coverage, premium increase, renewal of contracts and contractual conditions for the elderly and the unemployed. In particular, broader coverage would have the effect both of encouraging customers to join private health schemes and allowing them to use the private infrastructure for virtually all their health needs; as a consequence, the public system would have more room for those patients who have access to it alone.

However, the likelihood of further opening of the Brazilian health services market to foreign companies and capital being beneficial to the local population has more chance of materializing if this process were accompanied by the setting of appropriate rules. Regulations might establish minimum criteria for the entry of foreign companies into the Brazilian market, indicate the minimal coverage that private plans and insurances should offer, and include some conditionalities on the presence of foreign firms in Brazil. In other words, if Brazil wishes to open its market further to foreign competition, it needs to provide an adequate framework. Large firms and transnational corporations operating in the areas of hospitals, insurances and health plans may abuse market power and take advantage of the lack of rules. To ensure that the process of increasing competition and fairness in the market is carried out in the most efficient way, the State may consider the option of playing a less crucial role as health services provider and as a source of financing, while expanding its role as rule maker. The law which Parliament was discussing in 1997/98 would go some way towards solving this problem. This would be in line with the reform of the State undertaken since the mid-1990s which envisages the withdrawal of the State from the role of goods and services provider in many sectors (leaving space for private suppliers) in favour of strengthening its role as regulator (although the State would keep a key role as services provider in the health sector, unlike the case for some utilities). Given the economic, social and political complexity of such a process, however, the disengagement aspect of this reform has been privileged, while the process of setting up regulatory bodies and institutions has in many cases lagged behind. These features can also be observed in the field of health services.

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	
<hr/>		
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.

13. THE CASE OF INDIA

Indrani Gupta, Bishwanath Goldar and Arup Mitra

In the context of India, as for most developing countries, the focus of the discussion on trade in health services should begin with a discussion of national priorities in the health sector. Unlike commodity trade, trade in services in the social sectors, like education and health, can have a direct impact on these sectors of the economy by affecting the supply of, and demand for these services.

I HEALTH SERVICES IN INDIA

Trade in health services must be seen in conjunction with national health priorities. The "Health for All" strategy was adopted by WHO and national governments as a goal that should guide all planning and policy-making in the health sector. Thus the first step is to assess whether India's current and future activities in trade in health services are consistent with its goal of health for all. However, to do so we need to review the state of the health and medical sector in India. The questions one has to ask are: How does India compare with other countries in the health status of the population? Are the current health infrastructure and services sufficient to meet the health needs of the population?

Health status of the population

To assess whether India is reasonably close to the health-for-all objective, a quick look at the health status of the population would be useful. Since it is impossible to give a complete relative picture, we focus on three other countries in addition to India: a developed country like the United States, a relatively progressive country in the region like Sri Lanka and a neighbouring country in the same region which has performed poorly with respect to these socioeconomic and health indicators, Bangladesh. We choose a few selected health and related socioeconomic indicators to bring out the relative position of India (Table 1).

As can be seen from the table, the indicators of health status of the Indian population are generally worse than those of a developed country like the United States and also of a country in the region like Sri Lanka. Although India is definitely faring better compared to some of the other developing countries of the region like Bangladesh, it still has to go a long way towards achieving health for all. Infectious diseases are still the major cause of both morbidity and mortality in India, with non-infectious diseases also on the rise. There are newer diseases like AIDS spreading rapidly, and some others like tuberculosis, malaria, dengue re-emerging at an alarming pace. These facts, and the dual development with a large poor population and an increasing middle- and upper income class imply that India will have to invest in preventive and promotive health care as well as in curative care in the near future.

Table 1. Selected health and socioeconomic indicators

	United States	Sri Lanka	India	Bangladesh
Life expectancy	76	71.9	60.4	55.6
Infant mortality rate, 1991 (°/°°°)	9	18	90	103
Crude birth rate, 1991 (°/°°°)	16	21	30	34
Crude death rate, 1991 (°/°°°)	9	6	10	13
Median age at death, 1990	76	73	37	12
GNP per capita (in US\$), 1991	22 240	500	330	220
Female literacy rate, 1995 (%)	76 ^a	85	38	28

^a 1991 figure

Source: *World Development Report 1993*

Availability of health care

Any discussion on the availability of health care in a country begins with an overview of health care personnel and services available to the population at large. Though admittedly approximations, these statistics do help in relative comparisons and to get a sense of human and physical resource availability in the country. Table 2 gives the health personnel and infrastructure availability for the same four countries.

Table 2. Selected indicators of health infrastructure and services

	United States	Sri Lanka	India	Bangladesh
Doctors/1,000 (1988-92)	2.4	0.14	0.41	0.15
Hospital beds/1,000 (1985-90)	5.3	2.8	0.7	0.3
Nurse to doctor ratio (1988-92)	2.8	5.1	1.1	0.8
Nurses/Nurse-midwives/1,000 ^a	NA	0.74	0.4	0.08

^a For India, 1991 figure; for Sri Lanka and Bangladesh, 1994 figure.

Source: *World Development Report 1993*, and *Regional Health Report 1996*, WHO Regional Office for South-East Asia

The picture that emerges is that India is definitely lagging behind a country like the United States with regard to health infrastructure and services, but in terms of availability of physicians, it is doing significantly better than its neighbour Sri Lanka. On the hand, Sri Lanka has a large population of nurses and a very high nurse-to-doctor ratio. More recent evidence from the Ministry of Health indicates however that the availability of both doctors and nurses have been improving in India.

The figures indicate a relative shortage of hospitals, hospital beds and dispensaries. Evidence indicates that these services are much worse in the rural areas, with fewer doctors, nurses, hospitals and beds available for the population. Thus, it seems that as far as supply of services and infrastructure is concerned, India can hope to do much better. A slightly different issue is the quality, rather than the quantity of these services and infrastructure, a point to which we shall return below.

One important feature of the Indian medical system is the practice of alternative medicine. Table 3 gives the distribution of doctors for different types of medical systems. As the table indicates, allopathic doctors are only 43% of all doctors in India. There is a huge demand for alternative medicine from within India, and some evidence that there is a steady trickle of foreigners coming to India for treatment, especially in Ayurvedic medical care. For example, the Ayur

Vaidya Sala at Kottakkal in Kerala has gained popularity in Germany, the Gulf countries, Malaysia, the United Kingdom and the United States. Clearly India has a comparative advantage in these alternative systems, and this area is one potential growth area of in the context of trade in services.

Table 3. **Availability of doctors by type (1991)**

Type	Numbers (per cent)
Allopathic	3 94 068 (43%)
Ayurvedic	3 37 966 (36%)
Homeopathic	1 48 707 (16%)
Unani	35 350 (4%)
Others	11 981 (5%)
Total	9 28 072 (100%)

Although data on other paramedics and technicians are unavailable, our discussions with hospitals and doctors indicated that this is an area where there is a lot of scope to improve availability. Though newer medical equipment is being imported into India, there seems to be a shortage of technicians trained to use it. Training and upgrading skills are important steps towards remedying this situation, and trade is definitely one route through which this can be done, in addition to domestic policies.

Until recently, much of the discussion on health care services had focused on the government or semi-government health facilities and organizations. It has been realized in the recent past that the private medical care sector has been growing at a tremendous pace, affecting the overall health care supply and the cost and quality of supply. Unfortunately, data on the private health care system have never been collected systematically, which is a problem one faces when discussing the Indian health sector as a whole. Table 4 indicates the distribution of hospital and hospital beds by private and public ownership, and Table 5 indicates the growth rate of hospital and hospital beds.

The tables indicate that India has a very large and expanding private medical sector, with more than 60% of the hospitals and dispensaries being in the private sector. Only about 10 per cent of all doctors (allopathic) work in the government sector, the rest are in the private sector. The growth rate in the private sector has also been very high, as indicated by Table 5. This has important implications regarding the extent to which rules, regulations and controls can be exercised over medical practitioners.

Table 4. **Distribution of health facilities and beds (1993)**

Item	Total	Rural/urban (%)		Public/private (%)	
Hospitals	13 692	20.5	79.5	33.4	66.6
Hospital beds	596 203	15.8	84.2	64.6	35.4
Dispensaries	27 403	40.0	60.0	37.0	63.0
Dispensary beds	25 173	51.6	48.4	57.9	42.1

Source: *Health Information of India*, 1993.

Table 5. **Growth rate of hospitals and hospital beds**

Years	Hospitals		Hospital beds	
	Government	Private	Government	Private
1974-78	6.4	43.7	11.3	20.1
1979-84	1.0	12.1	1.9	3.9
1984-88	2.6	17.2	3.3	6.8

Source: *Baru*, 1995.

Needless to say, private care is more extensive in the form of curative care, and is more urban-based. A number of studies have looked at demand for medical care in India and have found that individuals do spend large amounts in seeking health care from the private sector. A number of issues have been thrown open in these analyses, especially regarding the quality and cost of private health care.

A recent trend has been the rapidly expanding number of corporate hospitals like Apollo, Escorts and Batra. Health care is supposedly of higher quality and is available at a cost to those who can afford to pay for it. In many instances, the services provided are comparable to those in developed countries.

A point very relevant to the discussion on trade in health services is the number of doctors who train abroad and subsequently return to India. This is important in the context of temporary versus permanent outflow of health personnel. Table 6 gives an overall picture about doctors trained abroad.

As can be seen, the data suggest that the maximum number of doctors who go abroad for training prefer the United Kingdom, followed by the United States. Roughly about half of all doctors trained abroad return to the country. A lot has already been written on brain drain of trained personnel from India, and it is contended here that some of it may be truly a reflection of the state of higher studies and training in India. The lack of state-of-the-art equipment and

infrastructure in India may be one professional reason why doctors may want to remain in these countries. With more possibilities of competitive facilities and pay structure in India in the health sector, India may be able to retain more personnel.

A related issue is the temporary foreign assignment of Indian doctors. The only data we were able to locate on this indicated that as of 1992 there were only 33 bilateral agreements between India and six countries of the Middle East. Even though this number is surely a gross underestimate, it does indicate that for Indian doctors the Middle East is one important region for short-term assignments. One reason why this number is an underestimate could be because it only includes the government doctors who need to go through a formal process before they can leave the country; private arrangements between Indian doctors and these countries do not show up in the statistics. Even though these numbers may be underestimates, these statistics do indicate that there is scope to step up short-term exchange between countries. This will also help towards checking brain drain from the country, a point to which we shall return later.

Table 6. Distribution of doctors trained abroad and returned

Countries of destination	Total trained	% returned	Major specialties ^a
United Kingdom	3 653	48%	Surgery, obstetrics and gynaecology, general medicine
United States	1 062	50%	General medicine, veterinary science, surgery
West Germany	82	41%	General medicine, veterinary science
Other European countries	279	52%	General medicine, surgery, veterinary science
Australia and New Zealand	48	17%	Surgery
Other	649	47%	Surgery, general medicine

India

Total	5 949	48%	
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^a In descending order of importance

Source: *Health Information of India*, 1993

Does India have a shortage of health personnel and infrastructure?

It is important to ascertain whether the current supply of health personnel and infrastructure is adequate in the context of trade, especially if India is going to export more health personnel; this trade should not affect the availability of health services within the country. In the absence of data, it is not easy to assess this, but based on the discussion above and also on the evidence we collected in our many meetings, we give our conclusions below.

India is a long way from the goal of basic health care services for the entire population. That there is a large unmet need for health care services is clear from the way the private health care sector has grown, and is still growing in India. Another piece of evidence is the growing private practice by government doctors, which the government has been unable to prevent, though it is not permitted. With the growth of nursing homes, many government doctors are not only practising privately, but are consulting at (or even owning) these nursing homes.

There has also been a recent trend of government doctors resigning and joining the private sector. The remuneration and working conditions are definitely better in the private sector, and thus this is a perfectly rational response of doctors to market signals. However, to the extent that the government hospitals are supposed to be inexpensive care mostly for lower income groups, losing good doctors is bound to have an adverse impact on the availability of good health care for this segment of the population. If government doctors can relatively easily take up short term foreign assignments, they may have less reason to resign and join the private sector.

Two points emerge from the preceding discussion: that there is a large unmet need for doctors in the rural areas and among the poor, and that the growing private sector is unlikely to meet this need. This is because the private sector caters mostly to the richer sections of the population, and there seems to be a large unmet demand even among this population. Also, the private medical

sector is expanding only in curative care and mostly in the areas of hospitals and nursing homes. Thus, it is unlikely that in the near future the rural sector or the poorer sections of the society will receive an adequate supply of physicians and other health personnel, unless drastic policy changes are effected in the allocation of resources in the economy. Export of health services is going to take place initially from the pool of health resources that caters mainly to the better off, and is unlikely to affect the availability of health services to the larger, poorer population of India. In fact, with freer movements across boundaries, more competition and therefore a more uniform pay structure across organizations within the country, there may be improvements in both quality and quantity of health care available in India.

As for nurses, the nurse-to-population ratio as given in Table 2 indicates that India can probably improve the availability of nurses. But this is not due to fewer nurses overall. India currently has about 500 000 nurses, and there is a steady increase in the supply of nurses every year; for example between 1992 and 1993, the supply went up by 16%. Evidence indicates that a large number of nurses are migrating to the Middle-Eastern and other countries. The nursing profession is probably still not as lucrative as the profession of doctors in India. The other reason could be that the supply of nurses is still more than the demand, though with the fast growth in the private medical sector this may change soon. There probably needs to be an improvement in the quality of nursing, and this can only happen when international standards are easily observed within the country. Greater trade is bound to influence the quality of nurses available, and check the outflow to a certain extent.

Though we do not have data, our judgement is that India needs to have a well-trained and larger pool of technicians, and training and refresher courses for technicians is an area India should focus on. As will be discussed below, there is no visible trade in this area, but short-term training courses should be an area which is likely to yield huge benefits. The Indian health system is heavily dependent on doctors, often to the detriment of a system of quality health care which includes well-trained nurses and other health personnel.

While greater export of health services gives rise to the possibility of a larger exchange of nurses and technicians, the nature of these jobs is not conducive to short-term movements. This is because unlike doctors, quick

consulting is not easy for other health personnel; they need complementary personnel and infrastructure because of the general nature of their jobs. Thus the only exchange may be for short duration training, workshops or seminars, which again is unlikely to affect supply. Also, India is producing an increasing number of nurses every year, which may be sufficient to meet domestic demand.

As for technicians, the current skill levels are not competitive enough for there to be a large-scale demand for Indian technicians abroad. Greater trade possibilities can only enhance the skill levels, and it is hoped that in case of both nurses and technicians the Indian education system in these two areas would gear up suitably to increase both the quantity and quality of these two professions.

In sum, opening up the health services sector for trade is unlikely to affect in any significant way, the availability of health personnel in India, and may improve quality and availability.

II TRADE IN HEALTH SERVICES: AREAS WITH POTENTIAL

In the context of India, telemedicine services are not very relevant as yet, though with the increasing use of the Internet, information regarding health and medicines is being increasingly exchanged. Also, telemedicine is an area which may take off after the other components of trade in health services have been developed, especially opening up the health sector to foreign investment. Thus, the most important modes of trade in the short run would be the category of service-providers working abroad, followed by foreign investment in the form of foreign health maintenance organizations (HMOs) setting up business in the country. Exchange of patients is also an area which has a lot of potential in terms of foreign exchange, and is already quite significant in India.

Framework for discussion

Below we discuss both the current situation and the future possibilities of trade in health services in India, and identify instances that are not relevant to India at this juncture. Table 7 presents a possible framework to make the discussion more focused. We make an important distinction between the two

main types of trading partners: trade with developing countries and trade with developed countries, because the issues and possible areas of trade would differ between these two sets of countries. Inflows and outflows are discussed separately. Also, a distinction is made between the existing situation, and the possible short-run situation. Admittedly, in the long run, the trade and development situation will change both globally and in India, and other possibilities will open up. Domestic policy changes might affect health services as well as trade, but this is unlikely to happen in the near future. Thus to make the discussion more tractable, we focus only on the short run. In our analysis we make a distinction between what is **possible** and what is **desirable**. In Table 7, in the column marked "future", we indicate the possibilities, and will examine the desirable directions or the priorities in the next section.

Table 7. Trade situation and future potential by type of trade and type of partner

Type of trade	A. To/from developing countries		B. To/from developed countries	
	Current	Future	Current	Future
1. Inflow of foreign doctors	No	No	Yes	Yes
2. Outflow of Indian doctors	Yes	Yes	Yes	Yes
3. Inflow of foreign nurses	No	No	No	No
4. Outflow of Indian nurses	Yes	Yes	Yes	Yes
5. Inflow of foreign other health personnel (e.g., technicians)	No	No	No	No
6. Outflow of Indian health personnel (e.g., technicians)	No	No	Yes	Yes

India

7. Inflow of foreign patients	Yes	Yes	Yes	Yes
8. Outflow of Indian patients	No	No	Yes	Yes
9. Inflow of foreign capital	No	Yes	Yes	Yes
10. Outflow of Indian capital	Yes	Yes	No	No

The analysis focuses on trade in health services in the following five areas: doctors, nurses, other health personnel, patients and foreign investment. As explained above, we do not discuss telemedicine here.

This framework allows 20 separate headings to be discussed each for the current situation and future scenario. A "yes" or a "no" indicate the current situation and future possibility. Since not all the cases are relevant in the short run, we will discuss these first. It must be pointed out that direct data on any of these items are unavailable, so most of what we will say below is based on indirect evidence, discussions with experts and organizations, and our own understanding of the situation.

Areas without trade possibilities in the short term

Inflow of foreign doctors from developing country into India (1A). There is no evidence to indicate that doctors from developing countries are coming into India for short-term assignments. This is certainly because India has a pool of adequate and well-trained doctors compared with these countries. The situation may change in the medium- to long-term, but as of now, we do not consider this to be a significant possibility in the near future.

Inflow of foreign nurses from developed and developing countries into India (3A, 3B). Currently, the evidence does not indicate that there are any foreign nurses working for short-term assignments in India. In fact, unlike doctors, nursing as a profession is heavily dependent on the complementary availability of other critical inputs; a nurse would need directions from doctors and would also be dependent on the availability of facilities and even other

health personnel. Thus, it may not be attractive for nurses to come for short assignments. Further, compared with India, developing countries of the region do not have a comparative advantage either in terms of quantity or quality of nurses. As for nurses from developed countries, the remuneration would not encourage such movements. There are barriers to labour mobility of categories below managerial, executive and specialists. Thus it is unlikely that in the near future there would be short-term movements of nurses into India.

Inflow of foreign technicians from developed and developing countries into India (5A,5B). As in the case of nurses, currently there is no evidence to indicate that there are foreign technicians working in India. For the same reasons as mentioned in the case of nurses, it is unlikely that there will be large movements of technicians or other health personnel, from either of these groups of countries.

Outflow of Indian technicians to developing countries (6A). There is currently no evidence to indicate that technicians are going to developing countries for short-term assignments. This is again because the developing countries are not significantly different from India in terms of the quantity and quality of technicians. Thus, we do not expect much activity in the exchange of technicians and other paramedics between India and other developing countries in the near future.

Outflow of Indian patients into developing countries (8A). Though some countries like Sri Lanka have probably similar or better health care to offer, there is no evidence to indicate that Indian patients are going to developing countries for treatment. The quality of care has to be far superior to what is available within the country for an individual to go to the trouble of arranging a trip abroad.

Outflow of Indian capital into developed countries (10B). Evidence does not indicate that India is investing significantly in the health sector of developed countries. Clearly, India does not have a comparative advantage in terms of either financial resources or state-of-the-art technology in the health sector, and

unless standards improve substantially there is little likelihood of its investing in the near future.

We omit these six cases from the discussion below on current areas of trade in India.

Areas of trade: current situation

Outflow of doctors and nurses to developing countries (2A, 4A). As indicated above, there has recently been a steady stream of doctors and nurses going to other developing countries, especially to the Gulf and Middle-Eastern countries. Many assignments are really not short term, in the sense that there are many health professionals of Indian origin and also recent migrants in these countries. But there are also bilateral short-run assignments, especially for doctors.

Outflow of doctors and other health personnel to developed countries (2B, 4B, 6B). There are about 60,000 doctors and 35,000 doctors of Indian origin settled in the United States and the United Kingdom respectively, and there is still significant short-term movement from reputed institutes in India to these and other developed countries. These are mostly bilateral agreements, as in the previous case. The hospitals we surveyed said that many permanent doctors went abroad every year; one hospital reported as many as 184 doctors who went abroad in 1996.

There is not much evidence to indicate that nurses and other health personnel have been leaving from India on short-term assignments. Though a few hospitals did mention that nurses and technicians were sent abroad for training, this seems to be small percentage of the total. The important point to note is that temporary movements are mainly from public hospitals and institutions.

Inflow of doctors from developed countries (1B). There seems to be visiting faculty and scholars coming to Indian hospitals from Canada, the United Kingdom, the United States and other developed countries for short-term consulting and even training.

Inflow of patients from developed and developing countries (7A, 7B).

Evidence indicates that there are people coming to India for treatment from the Gulf States, and also other neighbouring countries like Bangladesh, Mauritius, Nepal, Sri Lanka, etc. The quality of health care in India is better and also cheaper than in these countries. The proximity is also a key factor.

The hospitals we surveyed also revealed that some of the new and well-known hospitals receive foreign patients from developed countries like the United States. For example, the All India Institute of Medical Sciences received 342 foreign patients in 1995-1996, whereas Escorts received about 152. The total percentage of foreign patients could be as much as 5 per cent in these hospitals, with developing countries providing the bulk of these patients. One study indicates that the Apollo group of hospitals has been continuously receiving surgery cases from Chicago; these patients get treated at a quarter of the cost they would have incurred in their country.

All the hospitals surveyed said that there were no restrictions on admissions of foreign patients. However, one hospital mentioned that they were not equipped to deal with an influx of foreign patients.

Outflow of Indian patients to developed countries (8B). this trend has been diminishing; there many more individuals were going abroad a decade or so ago. However, there is still some movement, and this could be because some medical specialities or “super-specialties” are still not available on a large scale within India.

Inflow of foreign capital from developed countries (9B). There is evidence that a number of transnational corporations are investing huge sums of money in setting up new hospitals and state-of-the-art equipment. There is a trend towards super-specialty corporate hospitals in India, many of which are set up by transnationals or through collaboration between Indian and foreign companies.

One recent example of these ventures is the proposed Sir Edward Dunlop Hospital, a US\$40 million cardiac centre at Faridabad being set up by a consortium of three sets of companies, one each from Australia, Canada and India. This hospital will be followed by a chain of polyclinics and diagnostic

India

centres across the country. There are many such similar joint ventures, which got a boost from the government's policy of allowing more private sector participation in the health sector.

Inflow of foreign capital from developing countries (9A). Evidence does not indicate any significant trade in this direction. This is a potential area of growth, which may happen in the future with a more liberal and free trade environment

Outflow of Indian capital into developing countries (10A). No data were available on this, but anecdotal evidence indicates that some Indian companies, together with foreign partners, may be investing in health facilities in the region. This trend is likely to increase in the future, as the corporate hospital chains expand their operation.

On the basis of the above, it seems that India is already engaged in substantial trade of health services, of doctors and patients, and more recently of foreign capital. We will discuss below the existing barriers to trade, if any, in each of these fields, and the priority areas for India if the goal is to dismantle these barriers to increase trade.

III PRIORITIES IN TRADE FOR INDIA

Health care services are estimated to be worth about US\$ three trillion globally, with a small but growing component of trade. Although India contributes as yet a very insignificant amount to this trade, enormous potential exists for it to expand.

There are mainly two reasons to engage in trade in health services: to earn foreign exchange and to improve health services available within the country. To us it seems that if the first objective can be achieved without adversely affecting the second objective, it should be what economists call a "Pareto optimal" where nobody is worse off but someone is better off. There is yet a third objective, which is the objective of free global trade, which must go beyond India's own domestic priorities. Since trade must involve more than one

partner, it is imperative to recognize the benefits of a more liberalized global trade. Thus we prioritize below the growth areas, keeping in mind both India's domestic objectives, as well as the wider objective of fewer barriers to world trade.

Foreign patients coming to India. Currently, as discussed above, there are many foreign patients who are coming to India for treatment, both from developing and developed countries. The cost advantages vis-à-vis developed countries, and the quality advantage vis-à-vis developing countries, are the primary reasons for this trade. For example, the cost of coronary bypass surgery could be as low as Rs. 70,000 to 100,000, whereas it would be about Rs. 1.5 million to 2 million in the Western countries. Similarly, the cost of a liver transplant is about Rs. 7 million in the United States, whereas it is one-tenth of this price in India. For patients coming from other developing countries, the comparative advantage is both in terms of quality and price. This is one area where there can be major expansion in the future. This inflow will be mostly in hospital-based curative care, and is unlikely to crowd out nationals for the reasons mentioned in the first part of the paper. In addition to the foreign exchange, this will also make our facilities more competitive and improve standards within India. One important growth area is in alternative medicines, which is already attracting some patients from abroad. The different systems of medicines should be given special attention so that India can offer these services in a competitive fashion.

Foreign capital or foreign presence in India. As mentioned above, in the recent past, several transnationals have linked up with Indian companies to set up super-specialty hospitals and polyclinics in India. This trend is a good one since it will fulfil all the three objectives mentioned above. First, it will earn India considerable foreign exchange. Secondly, since the investing countries are almost all from the developed world, the standard of health services will improve if we are able to attract the right kind of investment, and we will gain by the expertise and the state-of-the art technology that this kind of investment would bring. This kind of trade would also encourage the inflow of doctors and

possibly other health personnel, and help towards a more global market in health services.

However, the only care one has to take is that obsolete technology does not come in with foreign investment, and that we truly gain from such an exchange. India also has to be careful about not creating a supply glut, since there is evidence that some of the similar Indian private companies are not able to sustain themselves due to cost overruns and lack of demand. For example, the Tamil Nadu Hospital Limited is seeking cheaper funding options, including infusion of foreign equity, because of huge cost overruns. Indiscriminate setting up of these corporate hospitals is likely to prove counterproductive and also hurt the indigenous hospitals.

Exchange of health personnel. Though this exchange will not make much difference to the exchequer, it is important for constant skill renewal and information exchange. Since health services are an area where skills need to be constantly renewed, this should be an area of focus for policy makers.

IV COMMITMENTS AND BARRIERS TO TRADE

We turn now to trade barriers. Is India able to trade efficiently or at all in these areas? What should be India's stand on each of these areas? But first, has India or any other country made any commitment under GATS?

Commitments

Commitments made by Members regarding market access and related matters, constitute the most important element of GATS. Examination of the commitments reveals that of the various health-related services, the commitments mostly concern hospital services.

Commitments for hospitals services have been made by Austria, the European Union, Hungary, Japan, Poland, the United States, and 15 developing countries including India, Malaysia, Mexico and Pakistan. Much smaller numbers of countries have made commitments for other human health services or other categories of health-related services. However, a number of countries have opened up the medical and dental services sub-sector under professional services (13 countries), and are allowing service suppliers like nurses and midwives under professional services (eight countries). It is interesting to find that some of these countries have not made commitments in health services but have allowed dental and medical services, and services of nurses and midwives.

Turning to hospital services, which is the main category of health services for which commitments have been made, it would be useful to look at the nature of commitments for the four modes of trade. As regards cross-border supply (telemedicine), most countries have kept it unbound, mainly on ground of technical infeasibility (at present). By contrast, most countries have put no limits on the "Consumption abroad" mode of trade in health services. Interestingly, India has kept this mode unbound, i.e. no commitment has been made about market access or national treatment. In regard to the third mode of supply, namely commercial presence, most countries have made commitments. Some countries have placed no restrictions on this mode, while some others (e.g. the United States, the European Union) have imposed certain limits. The limits are mostly about the foreign equity share permissible. In addition, there are

requirements of authorization and licensing; but this is to be expected for a foreign firm setting up a hospital. India allows this mode of health service supply only through incorporation with a foreign equity ceiling of 51 per cent. There is no limit on national treatment, implying thereby that such a hospital would receive the same treatment as hospital set up by an Indian entrepreneur.

The fourth mode, namely presence of natural persons as providers of service, is quite important, and has attracted a large number of commitments. Although a few countries have imposed no restrictions on this mode of supply of medical service, several others have laid down conditions on entry of natural personnel as service providers. In most cases, however, this mode is unbound except for horizontal commitments (i.e. those that apply to all sectors). The commitments of the European Union, India, Malaysia, Mexico and the United States are, for example, of this nature. The horizontal commitments make it difficult for foreign nationals to enter these countries as natural persons providing service, except as intercorporate transferees, managers, executives or high-level specialists. Doctors are accepted as specialists. It is therefore possible for Indian doctors to go to foreign countries as natural persons, subject to certain other restrictions, for example local regulations governing medical practice which often involves passing country-specific examinations.

India's horizontal commitment regarding professionals (which would include doctors) is that the natural person should be engaged by a juridical person in India as part of a service contract for rendering professional services for which he or she possesses the necessary academic credentials and professional qualifications and three years' experience. Another condition is that entry and stay in this category shall be for a maximum period of one year.

Another point to be noted here is that many of the countries which have opened their health-related services have asked for exemptions from applying most-favoured nation treatment. These countries, which include the United States, may therefore offer an advantage to health service providers from friendly countries, for example, those belonging to a trading bloc or those with whom a bilateral investment treaty exists.

Barriers to trade

The above discussion brought out that on the whole only a limited access has been provided by the Members to their markets for health-related services. It would be useful to look at the four different modes of supply of health services and spell out the barriers to trade that exist at present from the point of view of India's exports or imports of health services.

The first mode of supply, which includes telemedicine and other means of cross-border provision does not seem to be subject to any trade barrier at present. India has kept this mode unbound on the ground of technical infeasibility. Yet, it is quite possible that in the next 10 to 15 years such a network of cross-border supply will be set up in India. Thus, Indian doctors may provide diagnoses and advisory services (say, for magnetic-resonance imaging scan) to neighbouring developing countries, or foreign-owned hospitals in India established in the coming years may receive such services from doctors of the investing countries. Possibilities of such cross-border trade exist, and although India has made no commitments, there is at present no obvious barrier to such trade. It should be pointed out here that a number of countries, such as Malaysia, have imposed no limits on the cross-border supply of health services. India has made such commitment only in respect of telecommunication services. Even for computer and related services, India has made no commitment on cross-border supply.

For the second mode of supply, i.e. consumption abroad, India has made no commitments, though this is the predominant mode in which trade is taking place at present. Interestingly, most Member countries have put no limits on this mode of trade in health services. India's noncommittal attitude notwithstanding, inward and outward flow of patients to and from India seems to be virtually unrestricted, as discussed above. This does not imply, however, that there are no barriers to trade. One such barrier arises from the question of reimbursement of medical expenses. For example, for consumption of medical services by United States citizens, federal or state government reimbursement of medical expenses is limited to licensed, certified facilities in the United States or in a specific American state. This obviously comes in the way of consumption of health care facilities abroad and by the United States citizen. This restriction is not present

in the commitment of the European Union, although it is not clear if citizens of these countries can claim reimbursement from their governments/ insurance companies for expenses incurred in obtaining medical treatment abroad. In the case of India too, it would be difficult for a government employee to claim reimbursement for medical treatment received abroad (unless it were an emergency). Although the corporate sector is more liberal with its employees in the matter of health facilities, it is doubtful whether employees (barring possibly top executives) would be reimbursed cost of medical treatment received abroad.

Evidently, this is an area in which greater trade can be achieved through negotiations on reimbursement facilities. One particular action that can be taken is to ensure that if United States investors set up hospitals in India then reimbursement of medical expenses should be allowed for United States citizens treated in such a hospital.

With regard to the third mode, commercial presence, most countries have made commitments, as has India. Thus, in principal, it is possible for foreigners to set up hospitals in India, and Indians to set up hospitals abroad, both in developed and developing countries. Certain trade barriers, however, remain. One of them is the limit on permissible equity held by foreigners. In the case of India, the limit on foreign equity is 51 per cent (100 per cent for nonresident Indians). But there are countries in which the foreign equity ceiling has been set at a lower level (say 30 per cent). This is obviously a barrier to trade in health services, and calls for further negotiation with a view to relaxing the limit on foreign equity participation.

The importance of this mode of health service provision should be recognized. As discussed above, such investment from abroad may encourage more and more developed country patients to come to India for treatment. Again, such investment may be accompanied by foreign specialists coming to India and serving in such establishment for short periods.

Besides permissible foreign equity participation, there could be other restrictions on the "commercial presence" mode of health care exports. For example, the United States has maintained its right to impose a need-based quantitative limit on the establishment of hospitals and health care facilities. Another obstacle in this regard is that foreign enterprises and domestic enterprises may not receive the same treatment in the matter of acquisition of

land. An Indian entrepreneur trying to set up a hospital in the United States may face difficulties in acquiring land for this purpose.

As regards, the fourth mode of supply, natural persons, considerable barriers exist to trade because most countries want to regulate strictly the inflow of such persons. Consider the case of the United States. For entry and temporary stay of fashion models and specialty occupations, the United States commitment is up to 65,000 persons annually on a worldwide basis. The share of India in that figure would obviously be small, and that for doctors would be minuscule. There are, in addition, strict conditions for market access. The wages paid to the person should be the same as those paid to nationals in that profession (which eliminates the advantage of India as a cheap source of medical specialists). No labour management dispute should be in progress at the place of employment. No worker should have been laid off in the preceding six months and no American worker should be displaced in the 90-day period following the filing of an application or the 90-day period preceding and following the filing of any visa petition supported by an application. The employer should have taken and should take timely and significant steps to recruit and retain sufficient American workers in the specialty occupation.

Another difficulty that arises for the fourth mode of service provision is that in the matter of taxation foreigners are treated in the same way as United States citizens. Since natural persons as providers of service for a short period may be subject to taxation in their home country, being treated in the same way as a United States citizen implies that they might suffer double taxation.

A different category of problems regarding movement of natural persons arises from the fact that they would be subject to the regulations of professional bodies. They would be required to satisfy the requirements of professional qualification in order to be able to provide the service. For persons taking up short-term assignment, these regulations can be quite restrictive.

V CONCLUSIONS AND POLICY RECOMMENDATIONS

After analysing GATS and the Indian situation, we conclude that the Agreement is a positive step towards a freer trade regime in health services, though it has achieved little in terms of immediate liberalization.

As for India's position, we believe that opening up the various areas of health services will be beneficial for the country as a whole. Trade in health services would affect curative care in India only in the short run. In the long run, the whole system of health care is likely to be influenced by the opening up of this sector. We contend that this opening up is unlikely to affect the availability of health care within the country, and may in fact improve the quality and even the quantity of curative care available. For achieving the overall objective of health for all, India needs to make drastic changes in domestic policy in the health sector, and trade in health services will not adversely affect this objective.

The priorities in this area identified in this paper are three: outflow of health personnel, inflow of patients and inflow of foreign capital. This does not mean that these are the only three areas of current trade. However, these are areas where India is currently engaged in trade in health services, and where it should hope to gain the most.

The barriers to trade existing in these areas currently prevent an expansion of trade. Below we recommend specific steps that can be taken to remove or relax the barriers in these three, and in other, areas where India is currently engaged in trade.

The first recommendation we make is in the areas of greater commitments. Unlike GATT, GATS is a much more loose set of agreements, which has resulted by and large in countries not making commitments. The commitments thus far basically amount to a binding of the status quo. But the basic purpose of the agreement in terms of reduction of discrimination and enhancement of market access has not occurred. Unless countries come forward and make commitments, the objectives of GATS will remain unrealized. In the spirit of GATS, developed countries should take initiatives in this regard to make greater market-access commitments, and show a willingness to collaborate with developing countries.

Secondly, overall restrictions on short-term movements of medical personnel should be reviewed and relaxed so as to facilitate the easy exchange of health personnel across countries. In this context, one key demand of

developing countries was commitments that would make it possible for independent professionals to work abroad, without the requirement of commercial presence. This demand has however been bypassed in the sets of commitments that have been made so far by the developed countries. There have been very few offers for contract professionals and none for semiskilled and unskilled workers. Further, several developed countries have imposed an economic needs test, thereby severely restricting the flow of cross-border professionals. For example, the United States offer of accepting 65,000 persons annually is too low and also comes with several other restrictive clauses.

As far as exchange of health personnel is concerned, there needs to be a standardization of rules regarding educational degrees and their recognition by Member countries. One of the major deterrents towards greater exchange of health personnel in India has been the fact that Indian medical degrees and diplomas are not recognized by many developed countries. A system of mutual recognition for qualification requirements and technical standards need to be worked out globally, so that no arbitrary rejection of deserving candidates takes place. However, while global agreement on standards is required, countries need to review their own medical education system to ensure that a minimum standard in medical education and training is maintained.

As for specific measures that India can take to promote a more conducive trade environment to take advantage of greater trade in health services, the following points may be of relevance.

India should have a more open mind towards foreign investment in the health sector. However, this should be accompanied by a system of regulations relating to the health sector as a whole, which would prevent unfair practices by both domestic and foreign establishments.

Further, India has a very strong and unique system of alternative medicines. This is an area which should be given more attention, especially in the context of foreign patients coming into India for treatment.

Lastly, India should recognize its competitive advantage in exports of health services between countries and the various trading blocs of the region. It should take the lead in making bi- and multilateral agreements and commitments which would promote a freer environment in trade in health services.

14. THE CASE OF THAILAND

Songphan Singkaew and Songyot Chaichana

I THE HEALTH SECTOR IN THAILAND: AN OVERVIEW

The Thai health-care system is characterized by two main features: traditional medicine and Western medicine. The role of traditional medicine, however, is now declining.

In keeping with its economy, Thailand has a market-oriented health-care system. The patient has free choice to visit a doctor or health-care facility and this choice is exercised fully. Fee-for-service is the main method of paying service providers. Although public providers play the major role in providing health-care services, private hospitals, mainly owned by groups of doctors, are sprouting up in the big cities.

Health care providers

Health facilities. Public health-care facilities such as regional hospitals, provincial hospitals, medical-school hospitals and specialized hospitals cover all the provinces of Thailand. In addition, at district level, there are 708 community hospitals which, in 1996, covered 94.5 per cent of the total number of districts. In urban areas, moreover, there are 278 municipal health-service centres in the Bangkok Metropolitan Area and around the country. At *tambon* level, there are 9,239 health centres, which amounts to about 100 per cent coverage. Additionally, there are 521 community-health centres located in remote village areas. In addition, there are 61,432 primary health-care (PHC) centres established in rural areas and 808 PHC centres in urban areas.

With regard to private health-care facilities, there are private hospitals, private clinics and drug stores scattered around the country. The government has also provided equal opportunities for both private and public facilities based on market competition. However, when attention is focused on the locations of health-care

facilities, it is found that private health-care facilities are more concentrated in Bangkok and its suburbs and large cities.

Health personnel. There is a considerable shortage of health personnel countrywide, in both quality and distribution, despite past efforts to increase production in order to meet demand. Added to the already inadequate supply of health personnel, the outflow of public health personnel to the private sectors during the past five years has worsened the situation in the government sector. For example, the Ministry of Public Health can fill only 48.3 per cent of the total available posts of 53,371 professional nurses. Similarly, the Office of University Affairs can fill only 40 per cent of professional nurses' jobs. Other government agencies and the private sector have also faced similar situations. For the private sector, the shortage of professional nurses proves to be considerably more serious than that of medical doctors. This is reflected by the high rate of turnover in nursing posts. The salary of a new graduate nurse working in the private sector, however, is two and a half times that in the public sector. In conclusion, the ratio of nurses per population in Thailand is extremely low (1:1,150 in 1993), especially when compared to Japan (1:156), or our neighbouring ASEAN countries, such as Malaysia (1:470).

There is also unbalanced distribution of health personnel such as doctors, dentists, pharmacists and nurses between Bangkok and the other provinces. In Bangkok, there is one doctor per 940 of the population, while in other regions the ratio is less than one to 5,000. Particularly in the north-eastern region, the proportion is as low as 1:10,885. A similar pattern of unequal distribution is found for other health personnel.

In addition, there are a number of supportive health personnel and other personnel whose work is related to health such as *tambon* health personnel, village health volunteers and nursing sisters in local nutrition, child development and other centres.

Health expenditure

Between 1978 and 1992, health expenditure as a percentage of GDP increased from 3.4 per cent to 5.9 per cent. Total health expenditure rose, in real terms, from 853 Baht per person in 1978 to 2,689 Baht in 1992. Direct private payments accounted for as much as 73.7 per cent of total health expenditure in 1992. However, 57.7 per cent of this was for curative care.

Health financing originated from the four main sources described below.

Public expenditure was channelled mainly through the annual budget of the Ministry of Public Health which, in 1992, accounted for 16.78 per cent of overall health expenditure. In the same year, other governmental agencies' expenditure accounted for 3.2 per cent. The governmental budget allocated to public health in

the past five years has risen moderately. For the years from 1992 to 1997 respectively, health expenditure accounted for 5.4 per cent, 5.8 per cent, 6.3 per cent, 6.5 per cent, 6.7 per cent and 7 per cent of the total governmental budget.

Health schemes expenditure still played a minor role, despite considerable development in the health insurance system. Total health insurance expenditure was 4 per cent in 1978, with an increase to 4.8 per cent of total health expenditure in 1992. A noncontributory scheme for civil servants, financed from general taxation and controlled by the Ministry of Finance, provides medical benefits to civil servants and state pensioners. This scheme has shown a trend towards rapidly increasing medical expenditure. In 1978, the expenditure of the civil servants' scheme was 2 per cent of the total compared with 4.2 per cent in 1990 and 3.5 per cent in 1992. State enterprise employees also receive noncontributory medical benefits from their employers: expenditure on this scheme was around 0.4 per cent in 1978, with some increases reaching 0.9 per cent in 1986 and dropping back to 0.4 per cent in 1992. The cost of the workmen's compensation fund remained at between 0.4 and 0.5 per cent of overall health expenditure throughout the period. Private insurance reduced its share from 1.2 per cent of the total in 1978 to 0.4 per cent in 1992.

Foreign aid in health played a decreasing role, both in real terms and as a percentage of total foreign assistance. Foreign grants in the health sector declined from 1 per cent in 1978 to 0.2 per cent in 1992. The Department of Technical and Economic Cooperation is responsible for the assistance received by coordinating general loans or grants, part of which go to the health sector. Foreign aid may, however, be channelled directly to ministries or operating agencies.

Direct private payment is the major component of health sector expenditure. In 1978 it constituted 66.7 per cent and had increased to 73.7 per cent by 1992. In Thailand, direct private payments by households are made for health services received from traditional healers, drug stores, private and public clinics, health centres and hospitals.

Health care coverage

Health schemes in Thailand cover about 70 per cent of all Thai citizens. There are several health insurance schemes, each protecting specific groups of the population: low-income households are covered by free medical care funded from the Ministry of Health budget; the elderly of 60 years of age and above are entitled to free care subsidized by the same budget; school children are covered by school health insurance; civil servants and state enterprise employees, including their dependants, are entitled to medical fringe benefits under a non-contributory system; a compulsory social security scheme covers formal sector employees for

non-work-related medical benefits, maternity benefit, death and disability compensation. The government, employers and employees also pay contributions at 1.5 per cent of payroll value to the social security fund. There is also a workmen's compensation fund covering work-related illness and injury.

Private sector collaboration

Private sector activity falls into two categories: non-profit-making organizations such as hospitals under the patronage of religious institutions or foundations, and profit-making organizations such as private hospitals or clinics. Since 1992, the Ministry of Public Health has provided funding to the private non-profit-making organizations for community and health development activities to the amount of 47 million Baht annually. It also provides about 80 million Baht annually to private organizations for AIDS relief. In total, in 1997, the Ministry provided direct funding to private organizations to the amount of 619.6 million Baht, or around 0.87 per cent of the total Ministry budget. In fact, the majority of the public health funding projects in the private sector are in the area of health-care prevention and promotion such as family planning, AIDS prevention, nutrition, etc. and accounted for 83.41 per cent of the total.

International collaboration

Total external assistance to Thailand in the health sector decreased from US\$ 12.65 million in 1992 to US\$ 5.17 million in 1996. Forms of external assistance for health vary, although they can be classed as so-called "technical cooperation". The activities involved training, fellowships, experts, equipment, missions (such as consultancy, joint-venture), volunteers and grants.

Recently, the Government of Thailand has provided health assistance to neighbouring countries for a total amount of US\$ 5 million in 1995 and US\$ 4.25 million in 1996. In 1997, health projects were financed for Cambodia, Lao People's Democratic Republic, Myanmar and Viet Nam to the value of US\$ 1.2, US\$ 1.5, US\$ 0.8 and US\$ 1.2 million respectively. The main assistance activities are hospital construction and repair, provision of essential equipment, training, drugs and medical supplies.

Legislation and regulations

There is a passive regulatory system for health care. Although some mechanisms for health-care supervision and monitoring in public facilities are implemented, there is a lack of continuous, formal appraisal of the quality and appropriateness of care in public and private hospitals as well as private clinics. Regulations on health and health-related services include:

- law on setting up government organizations. A government department is allowed to establish its own health-care facility in accordance with budgetary and resource availability. The department can provide medical services and public health with autonomy in planning, personnel recruitment and so on;
- law on professional standards and ethics. The professionals (doctors, nurses, pharmacists, dentists and traditional healers) must have basic knowledge in their profession prior to their registration with the Ministry of Public Health;
- the Act on Medical Care Institutions B.E. 2504. It concerns the registration procedure and quality control of private hospitals and clinics. Some safety and quality of care standards for consumer protection are enforced. According to this law, information on the professional qualifications of health personnel must be provided before setting up a new hospital or clinic in Thailand.

Consumer preference for health services

One of the strengths of the health system in Thailand is the diversity of its services. The consumer's choice of provider is maintained. Government household surveys show that there is an increased demand for treatment, accompanied by a significant decrease in the demand for traditional medicine/healers and self-prescribed drugs, although primary health care visits are grouped under the heading of self-prescribed drugs. A decline in the number of private clinics/hospitals was found in the 1995 survey due to the high charges to users. Public hospital use rose from 11.1 per cent to 32.5 per cent over the period from 1970 to 1985 but fell sharply to 17.79 per cent in 1995. The availability of health centres with their improved quality proved its value by attracting back local visitors whose number more than doubled from 14.7 per cent in 1985 to 39.34 per cent in 1995. A screening mechanism for outpatient visits with an effective referral system is now in operation, after continuing efforts for more than three decades to establish it.

II HOW TRADE IN HEALTH SERVICES IS BEING CARRIED OUT

Owing to rapid industrialization and urbanization, the health sector has had to cope with an increase in environmental health and occupational health hazards. There is a rise in the number of formal sector workers who are protected by the 1990 Social Security Act. Since 1991, there has been a rapid increase in the number of hospitals due to changes in the method of paying providers. Thus the potential is obvious for the domestic health trade but less clear for international trade. This is due to prohibition by Thai legislative measures, especially the Public Health Act

B.E. 2535, the Act on Medical Care Institutions B.E. 2504 and the Act on the Art of Healing, B.E. 2479.

Movement of suppliers

In the case of Thailand, owing to a shortage of medical professionals working in remote rural areas, the government and the medical council have lifted the barriers to the medical profession for those who graduated abroad and for foreign doctors. At present, a Thai doctor who received training abroad must apply for and take a professional examination to obtain a medical licence to practise. Between 1969 and the present, 164 out of 1,096, or 14.96 per cent of all applicants, failed the professional examination. During that period, those who failed the examination could take an intensive course provided by some medical schools, and sit for a comprehensive examination, along with local medical students in training. Under a new regulation, however, Thai medical specialists who have graduated from developed countries, especially the United Kingdom and the United States, are entitled to receive a temporary licence to practise in government hospitals for two years, after which they receive a special permanent licence. Foreign doctors from developed countries may also apply to practise in public hospitals under the supervision of Thai doctors. For foreign doctors, it is still difficult to apply for a medical licence in Thailand because the examination is conducted entirely in the Thai language.

Nevertheless, some types of medical facility, such as fitness centres, clinics and health promotion centres, are run without professional supervision. Their licenses are granted directly and they are controlled by the local administration, the Ministry of Public Health or the Ministry of Trade. Some health and health-related services such as Chinese healers, chiropractic, etc. are also outside the control of a professional council or a national committee. For this reason, they are not free to trade in health and health-related services but they continue to practise illegally.

Movement of consumers

Although there is no specific data available in Thailand, people from neighbouring countries arrange inpatient visits, especially to teaching hospitals and private hospitals in Bangkok. Those who go to prominent hospitals in Bangkok are foreigners who work in international organizations and some better-off business people. On the other hand, hospitals located near border areas such as Had-Yai, Khon Kaen, Nong Kai, Ranong and Chiang Rai are also busy with poor immigrant patients. Overall, the Thai Government has had to allocate large subsidies to care for them.

Apart from this, about three million people a year who visit Thailand as tourists and businessmen may fall sick during their journeys and have access to all health-care facilities. Some private hospitals also provide dental care and cosmetic

surgery to foreign clients, especially Japanese, who find that services rendered in Thailand cost much less and are better than those provided in their own countries.

Many hospitals are endeavouring to obtain accreditation with the standard-setting agencies such as the International Standards Organization in order to be accepted by international insurance firms which are seeking suitable hospitals to satisfy their customers' needs.

Recently, there has been clear evidence of the popularity of Thai massage, health clubs, spas and traditional medicine services. In the future, health promotion and rehabilitation services are expected to generate foreign exchange. This results from the government policy of providing incentives to promote service investors and measures to control quality of care, as well as to accommodate foreign clients.

Commercial presence

The private health insurance business in Thailand began in 1978. Its growth rate has been very low in comparison with other types of insurance business. It has not had great success in terms of its market share, and business has been unstable and fluctuating. Only six companies writing solely health insurance policies share approximately 65 per cent of total direct premiums paid. Total expenditure on private insurance has decreased from 1.2 per cent of total health expenditure in 1978 to 0.4 per cent in 1992. However, 1.6 per cent of the population was covered by private health insurance in 1992 and figures projected for the year 2001 are 4.02 per cent.

Foreign-owned private hospitals or clinics are not permitted in Thailand unless the foreigners have established a joint venture with Thai partners. It is a requirement of the Ministry of Trade that their maximum share is 49 per cent of total investment. However, all foreign doctors working in a joint-venture private hospital are also required to pass the examination for a Thai professional licence.

Cross-border trade

A four-year telemedicine project has recently been set up at a total cost of 346 million Baht. It aims at providing health care in remote areas as well as continuing education for medical doctors. At present, there is a network of three teaching hospitals, 14 regional hospitals, seven provincial hospitals and 20 community hospitals. To date, there is no specific plan to cooperate with universities abroad in the provision of telemedicine. In the future, however, there is room for further international development in this field.

III PROBLEMS ENCOUNTERED

A number of obstacles to development of trade in health services in Thailand are identified below.

- Investment for hospital services must be licensed in accordance with Thai regulations which restrict this to Thai citizens only.
- Licences to practise professionally in Thailand are issued on a permanent or temporary basis. Those who wish to apply for a permanent licence must pass the professional examination set by professional councils or the national committee in each area of the profession. Eligible persons must have at least the basic qualifications issued by the committee, such as relevant education or an appropriate qualification granted by the approved professional institution abroad.
Those who wish to obtain a temporary licence must apply directly to the health minister who issues a temporary licence permitting the holder to work in the public service only.
- Imported pharmaceutical products and medical equipment for domestic use must be approved by the Food and Drugs Administration of the Ministry of Public Health. Imported products should pass through normal customs clearance procedures. However, there is also a patent law to control the licensing of pharmaceutical products and medical equipment.
- Persons not of Thai nationality wishing to work in Thailand must receive a work permit as required by Thai regulations.
- Setting up a new health insurance company is difficult. Application must be made through the Ministry of Trade. There is a limited quota for establishing new firms, as well as additional restrictions.
- The setting up of hospital consultancy services and the construction of hospitals and similar establishments are also controlled by the Ministry of Trade.
- To set up an educational institution or training centre in the health profession, application must be made to the Ministry of Education. Moreover, the curriculum must be approved by the professional council or the national committee for the particular profession.
- Health service research and development and technological development are protected by patent law.

IV STRATEGY TO INCREASE PARTICIPATION IN TRADE IN HEALTH SERVICES

A strategic plan to increase participation in health services has been drawn up. Its objectives are:

- to increase capability in producing the raw materials needed for domestic manufacturing of modern and traditional medicines by revising the structure of import taxes for raw materials and by promoting cross-licensing or joint ventures in drug manufacturing;
- to promote research and development of health products by both the public and private systems;
- to revise laws and regulations which hamper the growth of the health industry, for both domestic consumption and export;
- to promote the participation of consumer organizations and manufacturers' organizations in monitoring and controlling the standard, efficiency and quality of health products;
- to strengthen the government's monitoring and control systems to ensure the quality, safety and reasonable pricing of consumer products;
- to develop mechanisms and autonomous bodies for quality control of public and private hospitals and to promote the dissemination of information on quality, standards and pricing of hospital services in order to stimulate market competition for consumer protection;
- to promote the participation of the private sector in health system research, laboratory analysis, information dissemination and campaigns for consumer protection by providing budgetary support, information and technical documents, while reducing unnecessary control by government regulations;
- to decentralize authority for managing health resources to provincial, municipal and community levels and to nongovernmental organizations;
- to reform the health-care financing mechanism by emphasizing efficiency and equity in health-resource allocation and utilization;
- to reduce unnecessary procedures and regulations which hamper development, while accelerating the enforcement of essential laws and regulations, i.e. Royal Decree on Drugs, Royal Decree on Public Health. Furthermore, to promote the use of new technology and business management techniques to improve public health management;
- to promote networking of health development at all levels involving cooperation by all concerned parties including the government, nongovernmental organizations, the business sector, technical professions, people's organizations and the mass media; and
- to encourage nongovernmental organizations to become involved directly or as a joint venture with the government in various forms of health-care provision, with emphasis placed on quality and appropriate prices.

UNCTAD-WHO Joint Publication
International Trade in Health Services
A Development Perspective
Geneva, 1998

[Doc. symbol: UNCTAD/ITCD/TSB/5 - WHO/TFHE/98.1]

15. THE CASE OF MOZAMBIQUE

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I INTRODUCTION

This paper focuses on two health-related issues which are particularly relevant to the experience of Mozambique: the inflow and outflow of skilled health personnel, and the changes expected in the pharmaceutical sector in the current process of controlled liberalization. Mozambique has a serious shortage of qualified health personnel and imports all its required medicines. External aid contributes partially to fill the gap in the case of medical professionals. In relation to medicines, however, external aid finances more than 90 per cent of total medicines imported. Together, foreign technical assistance and drug imports absorb almost half of total health sector expenditure and largely determine the amount of health care the government can provide to the population.

This paper presents a brief background on the country and its health sector, and then discusses the consequences of this extreme dependence on foreign aid, with regard to expatriate health personnel and import of drugs. The paper suggests that the benefits of globalization will not accrue to the health sector for many years to come and, in the meantime, it could create additional pressures on scarce health resources.

Mozambique

The shift from a socialist to a market-oriented economy occurred in Mozambique with the introduction of a structural adjustment programme in 1987. This fundamental change had been on the agenda for years and had become inescapable owing to the virtual collapse of the economy, the devastating war and the extreme dependence on external aid. Under pressure

from the Bretton Woods institutions, central planning was abandoned to embrace liberal principles. The currency was substantially devalued, privatization of state companies began and state expenditure was cut. These changes, which occurred during (and despite) the intensifying war, resulted in a decline in real terms of financing for the social (health and education) sectors. Six years after the end of the war, the national currency has been stabilized, reconstruction has boosted investment and inflation has declined dramatically. These factors, coupled with good harvests, have pushed GDP growth to annual figures oscillating around 5 per cent. Nevertheless, the country's dependence on foreign financing is high, and external aid still constitutes around 60 per cent of the State's recurrent budget. Recently, Mozambique has embarked on an ambitious privatization programme. Hundreds of state-owned enterprises, such as tea-plantations, gas fields and infrastructure for tourism and utilities are being sold to private companies or individual entrepreneurs. The market-based, open and deregulated economy is attracting new private investors which is expected to have beneficial effects on the economy.

The health sector

After independence in 1975, all existing health facilities were nationalized, and private practice was abolished. Primary health care was adopted as a central policy and the rural health network was expanded substantially. The training of health personnel was accelerated. A national drugs' policy was gradually introduced¹. Health expenditure increased significantly. For a short time, developments were promising and the health sector was internationally regarded as a model, attracting considerable support.

By the mid 1980s, however, the prolonged war and the economic crisis were threatening the survival of the national health service (NHS)². Health expenditure had fallen dramatically. The security situation in rural areas worsened as health facilities and personnel were consistently targeted by guerrillas. The supply of drugs was disrupted. Accessibility to health services in rural areas was extremely reduced. Natural disasters compounded the crisis; emergency interventions increased with ever greater support from relief-oriented agencies and non-governmental organizations. The health sector fragmented along vertical lines as projects and programmes proliferated.

In 1991-1992, the Ministry of Health undertook a comprehensive policy review to prepare for the post-war transition, with the main focus being long-

¹ C. Barker C. The Mozambique pharmaceutical policy. *Lancet*, 1 October 1983, pp. 780-782.

² J. Cliff, N. Kanji and M. Muller, Mozambique Health Holding the Line. *Review of African Political Economy*, No. 36, 1986. pp. 7-23.

term sustainability³. The review focused on the rehabilitation of the health network and on human resources development. Private practice was reintroduced.

After the peace agreement in 1992, the health service expansion started again and more than 400 facilities have been constructed or rehabilitated. Skilled health workers have been redeployed to remote areas as training and upgrading capacity was strengthened. Coverage of basic health services has gradually increased. Service output expanded by 20 per cent during the period 1993-1996.

External aid contributes about 50 per cent of total recurrent expenditure in the health sector and more than 90 per cent of capital expenditure. External financing is declining in proportional terms, down from about 80 per cent of recurrent expenditure between 1988 and 1992. The state budget is increasing in real terms (+20 per cent, from 1989 to 1996). Cost-recovery is still negligible, outside large hospitals. The annual expenditure of the whole health sector has stabilized at about US\$ 100 million per year which represents little more than US\$ 6 per head, one of the lowest values in the world.

II THE TRADE OF HEALTH WORKERS IN MOZAMBIQUE

Following independence, Mozambique lost most of its skilled health personnel, largely constituted by Portuguese settlers. The immediate, acute shortage was partially relieved by the influx of skilled health workers, mainly from socialist countries. Several western volunteers, moved by ideological or anti-apartheid motivations, complemented the foreign workforce. Meanwhile, the Ministry of Health launched an intensive programme for the accelerated training of health personnel, with the creation of new categories oriented towards primary health care.

The direction of flow has not changed over time: currently, about 300 foreign doctors work within the NHS while fewer than 20 Mozambican doctors work abroad.

Mozambique: health personnel

	Mozambican	Expatriate	Total
Specialists	156	231	387
Nonspecialists	200	64	264
Total	356	295	651

³ A. R. Noormahomed, M. Segall, *The Public Health Sector in Mozambique: A post-war strategy for rehabilitation and sustained development*. Geneva, World Health Organization, 1993.

Source: Ministry of Health, 1998

The total number of national doctors now stands at about 400, about 50 of whom work outside the public sector. The present situation compares favourably with that prevailing in the past. In 1980, the NHS employed only about 300 doctors. Expatriates made up more than half the total, including the vast majority of specialists. The ratio of physicians per 1000 head of population has improved from 0.02 in 1980 to 0.04 in 1997, but it remains far from the average of 0.1 per 1000 in sub-Saharan Africa⁴. Thus, although the number of foreign doctors has increased since 1980, the ratio of national to foreign medical practitioners has improved significantly. In addition, deployment and staffing patterns have significantly improved. In 1990, on average only half of existing rural hospitals were staffed by a doctor. By 1997, the average number of doctors per rural hospital was about two.

There are many reasons behind the inflow/outflow imbalance. National doctors, particularly specialists, are absolutely inadequate in number to cover a relatively large hospital network, inherited from colonial times. The situation is made worse by their uneven distribution: around 46 per cent of national doctors and 79 per cent of national postgraduate doctors are working in Maputo City, where lucrative opportunities exist in the private, as well as the public sector. Most doctors complement their earnings from the NHS with part-time activities in the private sector or with “special” (i.e., paid) clinics in the public sector. The modalities of external aid compound the picture, as many posts for expatriates are tied as preconditions to projects. Additionally, expatriate professionals rarely face professional hurdles to practising inside the country, as almost every sort of medical qualification is accepted.

In relation to outflow, the migration of Mozambican doctors is hampered by the demanding requirements for obtaining a licence to practise medicine in many countries. Language constitutes a further barrier. Mozambique is surrounded by English-speaking countries, limiting immediate opportunities, and there are signs of saturation in other Portuguese-speaking countries further afield.

More than this, however, there are strong incentives for doctors to remain in Mozambique. Whereas in many southern African countries, medical professionals feel isolated and undervalued as well as underpaid, in Mozambique doctors are granted considerable social status and professional respect. They find opportunities beyond the health sector and are able to pursue careers in government, management and politics with the promise of financial compensation in the future.

This situation may alter in the future through pressure from medical professionals eager to hold internationally recognized qualifications. Already, there is growing interest in improving medical training in Mozambique to levels comparable with those of neighbouring countries. The costs of such a move

⁴ World Bank, Sector strategy. Health, nutrition and population. Washington D.C., 1997.

would be significant, and the prime beneficiaries would be graduate doctors seeking employment opportunities outside the country, which would deplete the pool of national doctors in Mozambique and work directly against the national health policy. Furthermore, a more demanding curriculum at the medical school could reduce its already small output. For the present, this debate has not led to significant changes in the medical school, mainly because of a lack of resources.

Until now, the public sector has maintained a policy of employing all health cadres. This choice was justified by limited training capacity and by the small size of the health sector workforce which, in 1996, numbered only 10,000 health professionals. Training facilities, run by the Ministry of Health under centrally planned human resources programmes, are expected to produce only the number of health professionals considered employable by the national health service.

Some cooperation agencies have recently started employing national professionals: they are readily available, familiar with the country and, sometimes, cheaper than international staff. Whereas this policy has met with warm support from national cadres, its effects on the health sector are problematic. Immediate financial gains are putting pressure on qualified professionals to leave their posts within the NHS in order to take up management or consultant positions. The substantial investment in their training (often carried out abroad) is therefore producing dubious returns. Furthermore, their new tasks are frequently unrelated to their core expertise.

The immediate consequence of the imbalances caused by a shortage of national doctors is the huge cost of foreign technical assistance. The relatively high number of expatriate doctors is almost totally covered by external financing which absorbs as much as 10 per cent to 15 per cent of the total sector expenditure, excluding the overhead costs such as taxation and administration often associated with expatriate posts.

In the past, the foreign workforce was recruited through an array of different schemes, depending on the financing agency and the cooperation agreement. This situation resulted in a disparate salary range linked to the hiring agency rather than to the job actually carried out, erratic deployment, supply-oriented staffing, and doubtful loyalty to the NHS. In order to overcome these constraints, a unified approach has recently been introduced where donor funds are pooled to finance the recruitment of specialized doctors. The posts are tendered, and the range of salaries has been compressed into standard scales according to objective criteria. Many of the specialists applying for these posts are citizens of countries born of the break-up of the Soviet Union. Many came to Mozambique during the 1980s within the framework of bilateral agreements and have stayed on. National doctors may also qualify for an NHS post funded by the pooling agreement as long as they have been working in Mozambique for three years, but outside the NHS. Those returning to the NHS after several years' work on donor contracts could cost the health service much more than they otherwise would as nationally recruited personnel.

Thus Mozambique represents an extreme case of donor dependence which, in the medium-term, cannot be reversed. On the contrary, the expansion

and upgrading of the health network will require more trained health personnel and this need is likely to be met only through international contracts.

Gradually, a larger number of national qualified cadres are entering the labour market. Whereas their total number is still low (about 500 university-level health professionals), it is expected that within a few years, internal financial constraints will limit their employment in the public sector. The training of health cadres has, until now, been the exclusive responsibility of the public sector. New university-level private institutions are being created and some of these are contemplating health-related training. This will further increase the supply side of the market, but its net effect is not easily foreseeable. Besides this, the profit-making private sector is very limited in strength and coverage and will not create many jobs in the short term. Furthermore, the changes under way in external assistance will limit the number of jobs offered to expatriates and national health workers. Many international agencies which ran large operations during the emergency period are now downsizing or closing down their interventions. The effects of all these changes may be that there are more qualified personnel than posts. Many of these individuals will be expatriate doctors who have lived here for years. Others will be national doctors released by international organizations due to downscaling of country programmes. Competition between local and expatriate doctors may then increase.

The decentralization of state administration will certainly affect the health sector, conditioning the workforce and its market. A possible scenario is the fragmentation of the health services, with large portions of service delivery handled over to local authorities, charities, churches and nongovernmental organizations. This new setting would almost certainly reduce the planning capacity of the Ministry of Health. The relatively rational deployment of health personnel, now possible within a single unified system, would be undermined. The demand for skilled workers would increase.

According to recent projections of the Ministry, the needs for specialist doctors will double in the next ten years, to accompany the expansion and upgrading of the health network. The Ministry's plan to accelerate postgraduate training of national doctors is unlikely, in such a short period, to meet these needs. A further, if limited, increase of expatriate specialists is therefore expected. Within a few years, delivery of primary health care should become the sole responsibility of national cadres, whereas senior foreign specialists will still be required to staff large hospitals and to fill high-level public health positions.

III THE PHARMACEUTICAL SECTOR

With regard to drugs, the picture is more complex. The market for drugs offers big business opportunities to pharmaceutical companies, but has many imperfections. The research and promotion costs are huge, and competition has led multinational pharmaceutical companies through a process of merging and concentration.

Developing countries consume an estimated 25 per cent of world drug production⁵. In spite of the limited market, developing countries are subject to the powerful marketing practices of multinational companies. The criteria of safety, tolerability, efficacy, ease of use and cost, usually utilized for defining the value of a drug, do not always coincide with the economic interests of the pharmaceutical companies. In developing countries, where the possibility of suing a multinational company is remote, ineffective, needlessly expensive, inappropriate or even harmful products are on sale. As a result, the consumer buys and utilizes the drug, prescribed by a health professional, but is not entitled to choose it, nor is he or she usually in a position to make a well-informed choice. This is particularly true in developing countries, where information on drugs available to patients is poor or nonexistent, and the quality of drug advertising is unreliable. There is a need, therefore, for greater regulation in order to protect the consumer from potential abuses and risks.

Because of the existing procedures and regulations, the health sector in Mozambique is still relatively protected from the negative effects of sales promotion. For the majority of health workers, for instance, the sole source of information is the widely known therapeutic guidelines of the Ministry of Health. The sales representative is still relatively uncommon, limited to a few high-level facilities or private practices. This relative protection however, is waning. Particularly in Maputo, doctors are increasingly prescribing drugs that are not included in the national formulary, using brand names or ignoring the existing therapeutic guidelines. The Ministry's capacity to control these practices is clearly limited. Beyond the negative effects on patients' health, the economic implications are worrying: more expensive and unnecessary drugs are consumed. As the internal cost of most drugs is only a fraction of the market cost, out-of-pocket contributions by patients only partly cover the drug cost. Furthermore, as drug imports are limited *de facto* to available donor support, expanding consumption of expensive and unnecessary drugs will ultimately jeopardize the import of low-cost essential drugs.

In the early years after independence, Mozambique adopted an original and successful pharmaceutical policy. The key elements of the initial accomplishment were the introduction of a national formulary (including about 400 essential drugs); the mandatory use of generic names; regulation with regard to level of prescription (the drugs were listed according to the level of health personnel entitled to administer them); and savings in the procurement of drugs achieved through international tendering managed by the state company MEDIMOC (which has so far enjoyed monopoly status).

In the 1980s, however, many shortcomings surfaced in the procurement and supply system, leading to chronic shortages and stock deficiencies. The main reasons for the poor performance of the pharmaceutical sector were the severe contraction of internal financing, which resulted in extreme dependence on external aid (more than 90 per cent) for the procurement of drugs;

⁵ N. Kanji, *Drugs policy in developing countries*. London, Zed Books, 1992.

exacerbation of the situation by the conditionalities attached to external aid and by the complex coordination arrangements required; the size and shape of the country with its poor road, communication and transport networks; the disruption of the distribution chain during the war; management weaknesses mainly due to the huge shortage of skilled personnel; and the fragmentation produced by “vertical” health programmes, which imported and distributed their own drugs.

Mozambique imports US\$ 25 million to 30 million worth of drugs yearly; this represents less than US\$2.00 per capita. However, the efficiency of the present procurement system, based on international tendering for large amounts of generic drugs, has resulted in better than expected availability of drugs. In addition, the reduced number of qualified prescribers minimizes the consumption of expensive drugs. To rationalize the situation, some donors have pooled their contributions in a common arrangement, managed by the Ministry of Health, which finances the purchase of large amounts of drugs. It has been very difficult to put the new scheme in place, but initial results are promising. Meanwhile, special imports linked to vertical programmes are gradually incorporated into the mainstream purchasing and distribution mechanism.

The Essential Drugs Programme, introduced in 1986, has proved effective in ensuring supply to primary health care facilities and rationalizing prescription. Standardized kits are supplied to health centres and posts, according to anticipated out-patient load and the training level of the prescribers. The controlled supply of adequate amounts of drugs limits the most frequent prescribing distortions; in fact, field surveys have shown prescription patterns which compare favourably with other countries.

In order to address the main weaknesses of the subsector, the Ministry of Health has recently developed a new strategy. A new bill, recently approved by Parliament, aims to consolidate the positive aspects of the national policy and support adjustments envisaged in the new strategic plan. Although the bill allows for the controlled liberalization of drug imports, the Ministry will continue to be responsible for the supply of drugs to the NHS. The production of pharmaceutical products will be permitted, as well as private ownership of pharmacies under the technical responsibility of a pharmaceutical professional. Lastly, the bill mandates the establishment of a drug board, reporting to the Minister of Health, with regulatory, quality control and inspection functions.

The new legislation aims to accommodate the changes determined by economic reform and the re-introduction of private medicine through controlled liberalization of drug imports and sales. It is expected, however, that it will result in increased drug costs because of the registration expenses incurred by the private import firms. On the other hand, external funding for drugs is unlikely to grow substantially, making the net outcome a decrease in drugs imports. More efficient donor coordination is therefore mandatory. The pooling mechanism for drug purchase and importation, recently adopted by some donors, as well as an improvement in the current cost-recovery system might, albeit partially, counterbalance the prospect of reduced drug availability.

As with the movement of medical professionals, liberalization of drug importation and sales in Mozambique may have at least short-term detrimental effects on the capacity of the country to deliver quality health services to its population. Despite the attractiveness of open economic policies in some sectors of the country, in health the damage may outweigh the benefits, particularly for those with little ability to pay more for publicly provided health care.

IV CONCLUSIONS

In focusing on its two most expensive resources, doctors and drugs, this brief review has highlighted some of the effects that the complex changes under way in Mozambique might exert on a weak health sector.

It will be some years before the internal supply of doctors approaches affordable demand, significantly reducing the present imbalance with foreign technical assistance. Only robust and sustained economic growth will enable substantial internally financed health service expansion, allowing Mozambique to continue importing professionals at its present level. The expected increased supply of qualified health workers could then be absorbed by the expanding services but would leave the present gap untouched. Without growth, unemployment among doctors (both local and expatriate) might become a new, unexpected and unpleasant reality for Mozambique. On the other hand, pressure to improve qualifications to international standards may create a reverse flow of national doctors, initiating a brain drain that has so far, and quite unusually, been avoided.

With regard to the pharmaceutical sector, controlled liberalization will bring some competition into the country. However, since private medicine is expanding at a slow pace and is limited to urban areas, and absolute poverty is still common, no proliferation of pharmaceutical products can reasonably be expected. For the few new drugs introduced on the market, more information regarding their utilization and side effects will be required for prescribers and patients. However, the danger is that these medicines will consume an unreasonable share of available resources. Only clear improvements in donor coordination, the reduction of tied purchasing, and the strengthening of the present cost-recovery system, coupled with more efficient internal distribution and waste-reduction activities can limit the expected decline in drug availability.

For the Mozambican health sector, globalization and increasing international trade is not a uniformly attractive prospect. While greater economic activity increases health risks and the burden of occupational disease, trade in health commodities can increase pressure on government policies aimed at achieving equity and efficiency in the delivery of essential health services to all Mozambicans. Although the health system may eventually benefit from economic growth resulting from globalization, the short-term benefits are likely to be enjoyed by individual doctors, private pharmacists and drug companies. Those who stand to lose - at least in the immediate future - are the poor majority of the population.

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