

Trade in health services*

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Abstract In light of the increasing globalization of the health sector, this article examines ways in which health services can be traded, using the mode-wise characterization of trade defined in the General Agreement on Trade in Services. The trade modes include cross-border delivery of health services via physical and electronic means, and cross-border movement of consumers, professionals, and capital. An examination of the positive and negative implications of trade in health services for equity, efficiency, quality, and access to health care indicates that health services trade has brought mixed benefits and that there is a clear role for policy measures to mitigate the adverse consequences and facilitate the gains. Some policy measures and priority areas for action are outlined, including steps to address the “brain drain”; increasing investment in the health sector and prioritizing this investment better; and promoting linkages between private and public health care services to ensure equity. Data collection, measures, and studies on health services trade all need to be improved, to assess better the magnitude and potential implications of this trade. In this context, the potential costs and benefits of trade in health services are shaped by the underlying structural conditions and existing regulatory, policy, and infrastructure in the health sector. Thus, appropriate policies and safeguard measures are required to take advantage of globalization in health services.

Keywords Health services/utilization; Commerce; Investments; Delivery of health care/methods; Health services accessibility; Health manpower; Emigration and immigration; International cooperation; Health priorities (*source: MeSH, NLM*).

Mots clés Services santé/utilisation; Commerce; Investissement; Délivrance soins/méthodes; Accessibilité service santé; Personnel santé; Emigration et immigration; Coopération internationale; Priorités en santé (*source: MeSH, INSERM*).

Palabras clave Servicios de salud/utilización; Comercio; Inversiones; Prestación de atención de salud/métodos; Accesibilidad a los servicios de salud; Recursos humanos en salud; Migración internacional; Cooperación internacional; Prioridades en salud (*fuentes: DeCS, BIREME*).

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Overview of global trade in health services

The health care sector is among the most rapidly growing in the world economy. It is estimated to generate US\$ 3 trillion per year in countries in the Organisation for Economic Co-operation and Development alone and is expected to rise to US\$ 4 trillion by 2005 (1, 2). The globalization of health services is reflected in the growing cross-border delivery of health services, through movement of personnel and consumers (by electronic and other means), and in an increasing number of joint ventures and collaborative arrangements. Using the General Agreement on Trade in Services (GATS) definitions, trade in health services occurs via four modes of supply.

Cross-border delivery of trade (mode 1)

Cross-border delivery includes shipment of laboratory samples, diagnosis, and clinical consultation via traditional mail channels, as well as electronic delivery of health services, such as diagnosis, second opinions, and consultations. Countries use a variety of telehealth services, including telepathology, teleradiology and telepsychiatry. Many cross-border telemedicine initiatives have also emerged. For example, telediagnostic, surveillance and consultation services are provided by hospitals in the USA to hospitals in Central America and the Eastern Mediterranean, and Indian physicians provide telepathology services to hospitals in Bangladesh and Nepal. Telediagnosis

services are also provided by hospitals in China's coastal provinces to patients in Macao Special Administrative Region of China, China (Province of Taiwan), and some south-east Asian countries.

Consumption of health services abroad (mode 2)

Consumption abroad refers to the movement of consumers to the country providing the service for diagnosis and treatment. Under this mode, affluent patients in developing countries seek specialized high-quality treatment overseas in hospitals in industrialized countries or in neighbouring developing countries with superior health care standards. Patients from industrialized countries seek affordable, high-quality treatment or alternative medicines and treatments in developing countries.

Several developing countries export health services via consumption abroad. Cuba, for example, has made a conscious effort to attract foreign patients from Latin America, the Caribbean, Europe, and Russia to specialized hospitals which provide high-quality care at competitive prices. It has also differentiated itself by focusing on treatment of certain skin diseases which are incurable in other countries, and on the development of new procedures and drugs, such as for pigmentary retinopathy or vitiligo. In 1995–96, more than 25 000 foreign patients went to Cuba for treatment, generating an estimated US\$ 25 million in sales of health services to foreigners (2).

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India also exports health services through consumption abroad. Patients come from industrialized and developing countries (including Bangladesh, the Eastern Mediterranean, Nepal, Sri Lanka, the United Kingdom, and the USA) for surgery and specialized services in areas such as neurology, cardiology, endocrinology, nephrology, and urology. They are attracted by India's pool of highly qualified health care professionals and by the country's ability to provide good quality, affordable treatment. In India, a coronary bypass operation costs Rs 70 000–100 000, compared to Rs 1.5–2.0 million in Western countries. A liver transplant in India costs one-tenth of that in the USA (1). Specialty hospitals, such as those in the Apollo group in India, get surgery cases from the USA, foreign tourists, non-resident Indians, and foreign residents for such treatments. Each year, an estimated 50 000 patients come to India from Bangladesh and spend over US\$ 1 million per year on the treatment of specialized diseases (3).

Several developing countries have also diversified into areas such as medical and paramedical education, health tourism, and alternative medicines and treatments. India and Thailand, for example, reserve places in medical colleges for students from other developing countries, and Cuba provides training for specialists, paramedics and students from selected countries under bilateral agreements. Cuba and Thailand have also combined health care with tourism and recreational services. India is exploiting its niche in traditional medicines such as Unani, Ayurveda and homeopathic forms of treatment and has developed holistic health care centres, such as the Ayurvedic school in Kottakkal, Kerala, where it attracts patients from the Eastern Mediterranean, Germany, Malaysia, the United Kingdom, and the USA.

Commercial presence (mode 3)

Commercial presence involves the establishment of hospitals, clinics, diagnostic and treatment centres, and nursing homes. Countries such as India, Indonesia, Nepal, Sri Lanka, and Thailand have become increasingly open to foreign direct investment. For example, approval has been given to a German company to have 90% foreign equity ownership for setting up a 200-bed hospital in Delhi. Several specialty corporate hospitals are being built in collaboration between Indian and foreign companies, including a US\$ 40 million cardiac centre, set up under a consortium between Australia, Canada, and India. Corporate hospitals in developing countries are also establishing commercial presence overseas. For example, the Apollo group of hospitals in India has established a hospital outside the country and plans to invest roughly US\$ 4 billion to build 15 new hospitals in Malaysia, Nepal, and Sri Lanka.

Health care companies in industrialized and some developing countries are increasingly engaging in joint ventures and alliances, resulting in several regional health care networks and chains. For instance, the Singapore-based Parkway Group has acquired hospitals in Asia and the United Kingdom and has formed joint ventures with partners in India, Indonesia, Malaysia, Sri Lanka, and the United Kingdom to create an international chain of hospitals, Gleneagles International. In partnership with host country investors, the Raffles Medical Group in Singapore has formed global strategic alliances with health care organizations from industrialized countries, to develop an integrated network of health care companies that offers a range of high-quality and cost-effective health services.

Movement of health personnel (mode 4)

Health services are also traded via the movement of health personnel, including physicians, specialists, nurses, paramedics, midwives, technicians, consultants, trainers, health management personnel, and other professionals. The movement of health care professionals includes both temporary and permanent flows, each having different legal, social and economic implications for both source and host countries.

Short-term flows have mainly been driven by conscious strategies to promote health services exports, in order to earn foreign exchange and foster cooperation between governments. For instance, China and Cuba send health personnel abroad on short-term remunerated contracts to countries in Africa, under government supervision. There is also a short-term flow of health care professionals from Ghana to Jamaica, and from India to the Eastern Mediterranean. The Eastern Mediterranean is an important host market for physicians, nurses, X-ray technicians, laboratory technicians, dental hygienists, physiotherapists, and medical rehabilitation workers from many developing countries.

Permanent migration of health professionals occurs mainly from developing to industrialized countries. It is driven by wage differentials between countries and a search for better working conditions and living standards; a search for better training possibilities; and demand–supply imbalances in the health sector between host and source countries. A 1998 United Nations Conference on Trade and Development/WHO study estimated that 56% of all migrating physicians flow from developing countries to industrialized countries, while only 11% migrate in the opposite direction; the imbalance was even greater for nurses. The most prominent source countries for health personnel are India, the Philippines, and South Africa, whose nurses, physicians and technicians emigrate to Australia, the Eastern Mediterranean, the United Kingdom, and the USA.

Countries have adopted different policies towards the migration of health care professionals. To deter permanent outflows of personnel, countries such as India and South Africa have required their health care professionals to provide a period of service in their own country after graduation. Some destination markets have actively encouraged inflows of specific categories of foreign health care professionals. The USA, for example, has introduced special visa schemes and changes in immigration policy to encourage inflows of nurses and technicians from India, Jamaica, and the Philippines and inflows of specialists from Canada and the United Kingdom. Changes in immigration policy in the USA greatly increased the emigration of nurses and physicians from developing and industrialized countries to the USA between 1990 and 1996. Between 1970 and 1993, the number of foreign medical graduates in the USA rose from 57 000 to 150 000, with India, Pakistan, and the Philippines accounting for 45% of all international medical graduates by 1993. By 1996, there were 110 000 nurses employed or residing in the USA who had been educated outside the USA: 43% of them came from the Philippines, 19% from Canada, 15% from the United Kingdom, and 9% from India (4).

Implications of trade in health services

Many factors must be considered when assessing the implications of trade in health services, but ultimately the net impact of the trade depends on the specifics of a country's

national health care system, the regulatory environment, and government policies. Each supply mode has associated benefits and problems. However, many of the problems would exist even in the absence of globalization. The question is, therefore, whether globalization of health services is likely to aggravate such problems and pose additional challenges.

Cross-border delivery

Cross-border delivery of health services through telemedicine can enable health care providers to cater to remote and underserved segments of the population; help alleviate human resource constraints; enable more cost-effective surveillance of diseases; improve the quality of diagnosis and treatment; and help upgrade skills through interactive electronic means. However, these gains are possible only if the requisite infrastructure is present. Given the lack of telecommunications and power sector infrastructure in many developing countries, telemedicine may not be cost-effective. In such cases, public sector resources for telemedicine may be better invested in improving basic health care facilities for disease prevention and cure, and in areas where there is a direct impact on the poor. The risk is that telemedicine will channel revenues away from rural and primary health care and towards specialized centres, thus concentrating technologies which cater to the affluent few in developing countries.

Consumption abroad

Trade in health services via consumption abroad also has mixed implications. On the positive side, it may enable exporting countries to improve their national health systems, by generating foreign exchange and additional resources for investment in health care. It can also help in overcoming shortages of physical and human resources in the importing countries, particularly for specialized health services. But consumption of trade abroad could also result in a dual market structure, by creating a higher-quality, expensive segment that caters to wealthy nationals and foreigners, and a much lower-quality, resource-constrained segment catering to the poor. Availability of services, including physicians and other trained personnel, as well as the availability of beds may rise in the higher-standard centres at the expense of the public sector, resulting in a crowding out of the local population.

Commercial presence

As for consumption abroad, commercial presence in health services can generate additional resources for investment in and upgrading of health care infrastructure and technologies; generate employment; reduce underemployment of health personnel; and provide expensive and specialized medical services. The availability of private capital could reduce the total burden on government resources, helping to reallocate government expenditure towards the public health care sector. Affiliations and partnerships with reputed health service institutions in industrialized countries can also help to improve service facilities in developing countries and introduce superior management techniques and information systems.

However, the gains from reduced pressure on government resources may be offset by the huge initial public investments that may be required to attract foreign direct investment into the health sector. Furthermore, if specialty corporate hospitals are established using public funds and subsidies, this would divert resources from the public health

system and could lead to a two-tiered health care system with a corporate segment and a public-sector segment, the former concentrating on high-level technology and services which do not address broader social needs. A two-tiered system may also result in an internal “brain drain”, as better-quality health care professionals flow from the public health care segment to the corporate segment, with its better pay and superior infrastructure. It may also cause “cream skimming”, whereby those who need less but can pay more are served at the expense of the poor and more deserving. These problems have occurred in countries such as Thailand, where there has been an increased outflow of service providers from the public to the private health sector, partly in response to the emergence of joint-venture private hospitals formed by local and foreign companies. This internal brain drain has aggravated the shortage of health personnel and worsened the existing inequitable distribution of health care resources within the country (5).

Movement of personnel

The implications of trade via movement of health service providers are also not clear cut. From the source country's perspective, increased mobility of health care providers can generate remittances and transfers; can help promote exchange of clinical knowledge among professionals; and help upgrade skills and standards in the country. For the host country, movement of health personnel provides an important means to meet the shortage of health care providers, improve the quality and accessibility of health care services, and contain cost pressures. In Mozambique, for instance, foreign specialists from Portugal and South Africa are used to staff large hospitals and fill public health positions. Similarly, Mauritania depends on qualified physicians and specialists from France, Morocco, and Tunisia.

If these outflows are permanent, however, there are likely to be adverse implications for equity, quality, and availability of health services in the source countries, and indeed the bulk of cross-border flows of health care professionals do take the form of permanent migration. An estimated 10 000 health professionals emigrated from South Africa between 1989 and 1997, for example, and between one-third to one-half of the health-profession graduates each year emigrates, mainly to the United Kingdom and the USA (6, 7). Similarly, it has been estimated that over 10 000 medical and biotechnology experts from Egypt have emigrated from that country (8) and out of 1200 physicians trained in Zimbabwe during the 1990s, only 360 were practising in the country in 2001. A large number of nurses also emigrated from Zimbabwe to Australia, New Zealand, and the United Kingdom, prompted by the low wages, poor working conditions and political instability in their home country (9). Some 60% of Ghanaian physicians trained locally during the 1980s have also left the country, and in the Sudan an estimated 17% of physicians and dentists left the country between 1985 and 1990.

A permanent outflow of health service providers imposes significant costs on the source country. It leads to shortages of highly trained personnel, and public resources invested in their training are lost in the outflow of human capital. One study estimated that South Africa lost 67.8 billion Rand in human capital investment in the health care sector in 1997 (calculated from the training cost of R 600 000 per

physician), a loss only partly offset by the remittances arising from such outflows. Moreover, there are also income distribution and reallocation consequences, since remittances and transfers are private and do not flow directly to the public sector, unlike the direct benefits from retaining domestic health professionals. One should recognize, however, that in an increasingly globalized and interconnected world, there are increased possibilities for tapping overseas expatriate networks of technical expertise and for exchange of information and resources.

General trade liberalization

There is another general implication of trade liberalization in health services. Neoclassical theory predicts that increased exports of health services, such as through inflows of foreign patients or outflows of health care professionals, will tend to raise the price of health services in the source country, but that the source country will be able to afford the increased costs due to income gains from increased exports. In practice, however, this has not happened. The rise in domestic prices of health services may have a negative distributional impact on poorer sections of the population, unless the resources and income gains are redistributed to the affected sections, or are used to augment resources in the public health system. Thus, there is a need for public policy intervention to mitigate the price impact on the poorer sections of the population.

It is important to recognize, however, that many of the adverse implications of trade in health services highlighted above are due to internal factors, rather than globalization per se. Moreover, while globalization may aggravate some of these problems, it may also provide opportunities for correcting some of the underlying conditions that are the root causes of the health care brain drain from developing countries, such as low wages, and poor working conditions and infrastructure. For example, the increased flows of health care professionals between countries could be helpful in retaining and attracting health professionals back to the source country, if the source country raises standards, improves infrastructure, and creates more domestic employment opportunities in the sector. Similarly, crowding out of nationals from the health care system due to consumption abroad is mainly due to inadequate human and physical resources in the health sector, and in the absence of appropriate regulations to ensure access for the needy, trade may aggravate the crowding out problem. However, if safeguards are in place to ensure such access, trade can augment the resources available for investment and alleviate the pressure on the health care sector by expanding facilities for all. Thus, the impact of trade in health services for equity, access, costs, and quality of health services is largely dependent on the policies and safeguards governments put in place and on the existing conditions in the sector.

Important issues and policy priorities

The preceding discussion highlights several important and interrelated issues and suggests priority areas for action. Chief among the priorities are to: address the brain drain; upgrade and invest in the health care sector; and promote linkages between the public and private health care segments. The associated policy recommendations are discussed below.

Brain drain

There is both an internal and external brain drain in the health sector and to tackle this problem, whether by retaining health professionals or by attracting emigrants to return to their home country, the root causes have to be addressed. For this, bilateral, regional, and multilateral cooperation is required. One approach would be for source and host countries to negotiate short-term bilateral agreements on cross-border flows of health care professionals in line with their domestic supply-and-demand conditions. Such agreements could include special visa schemes and recruitment programmes, and they would yield benefits by upgrading skills and by increasing exposure and foreign exchange earnings, while reducing permanent outflows. Another form of bilateral cooperation would be for the host country to provide the source country with technical and financial assistance.

Multilateral cooperation on immigration, labour-market policies, professional standards, mutual recognition, and licensing norms is required in the context of GATS discussions on the movement of health personnel, and in multilateral forums, such as the Organisation for Economic Co-operation and Development and WHO. Similar discussions are also required in regional agreements, such as North American Free Trade Agreement, Mercosur, and the European Union, where there are provisions for cross-border labour mobility (10, 11).

To stem the brain drain, countries could introduce negative incentives via migration taxes, for example, by requiring emigrating professionals to reimburse the government for training costs and by requiring a mandatory period of service in the source country. Positive incentives could also be considered, such as income-tax exemptions, measures to improve working conditions and facilities, and increased opportunities for professional development. Expatriate health professionals could also be induced to contribute to their home country's health sector under official "return of talent" programmes; through contractual and visiting appointments; through collaborative research and training arrangements; by establishing "brain gain" networks, through online communication and exchange with local health care professionals; and through foreign direct investment by the expatriate community.

Increasing investment in the health sector

A root cause of many of the problems mentioned above is that investment in the health sector of many developing countries is neither sufficient nor efficiently deployed. If the availability and quality of human and physical resources in this sector are to be improved, expenditures on health care need to be increased and allocated efficiently, in line with local needs and priorities. Other measures include: reducing the high cost of land in urban areas; providing land at subsidized rates in urban areas for setting up medical facilities; providing financial assistance, such as soft loans for hospital construction and equipment; rationalizing the costs of specialized facilities by having institutions share the burden; and revamping management procedures, to increase efficiency and reduce the cost of health care services.

Revenue generated from trade in health services could also be partly used to develop the domestic health care sector. Taxes collected from foreign-owned commercial hospitals, for example, could be reinvested in the public health system. However, countries need to assess their needs in specific segments of the health profession and invest accordingly in training and facilities.

Linking public and private health care services

There is a need to establish linkages between the public and private health care systems, since this could help augment the financial capacity of the public health sector, improve the overall availability and quality of services for the public at large, and reduce the disparity in standards and working conditions between the two segments. Linkage could be established through professional exchanges; cooperation in training; use of facilities; telemedicine; sharing of information and research; and by providing complementary or specialized treatments.

Another means of forming linkages would be to cross-subsidize the public and private health care sectors, by transferring tax revenues from the latter or by providing beds free or at subsidized rates in high-quality corporate hospitals. Such provisions, however, would need to be monitored. Mechanisms could also be introduced to channel resources from the export of specialized and niche services to the public health system, and to promote linkages between these niche areas and basic health care delivery. To encourage the provision of health care services in rural, peripheral, and underserved areas, incentives should be given to the private sector to support independent practitioners via funds and other amenities.

In addition, the experience of various countries suggests that it is important to adopt conscious strategies for promoting trade in health services. The strategies should aim to: exploit a country's comparative advantage in niche areas, such as traditional and alternative medicines; exploit natural resource endowments; tap regional, cultural, and other opportunities; and integrate policies in the health sector with those in related areas, such as telecommunications, insurance, and education. International and regional cooperation will also be required to address emerging issues in health services trade, including issues such as cross-border payments and insurance systems, malpractice liability, privacy in the context of telemedicine, and consumption abroad.

Finally, there is a need to develop a comprehensive and systematic database on global transactions in the health sector. This will require coordination among professional associations, ministries of health and commerce, and multilateral agencies such as the United Nations, WHO, the World Trade Organization, the International Monetary Fund, and the World Bank. In-depth case studies are also required to assess the potential costs and benefits of trade in health services for individual countries and regions. ■

Conflicts of interest: none declared.

Résumé

Le commerce des services de santé

Compte tenu de la mondialisation croissante du secteur de la santé, les différentes manières dont les services de santé peuvent être commercialisés sont passées en revue, en utilisant la caractérisation suivant le mode de fourniture définie dans l'Accord général sur le commerce des services. Les modes de commercialisation comprennent la fourniture transfrontières de services de santé par des moyens physiques et électroniques, et le mouvement transfrontières de consommateurs, de professionnels et de capitaux. Un examen des incidences positives et négatives du commerce des services de santé du point de vue de l'équité, de l'efficacité, de la qualité et de l'accès aux soins de santé montre que le développement du commerce des services de santé a donné des résultats mitigés et que certaines mesures gouvernementales seraient clairement nécessaires pour en atténuer les conséquences négatives et en renforcer les effets bénéfiques. Quelques mesures de politique générale et domaines d'action

prioritaires sont proposés, y compris des mesures pour lutter contre « la fuite des cerveaux », accroître les investissements dans le secteur de la santé en les canalisant davantage vers les secteurs prioritaires, et promouvoir les liens entre les services des soins de santé du secteur privé et ceux du secteur public pour assurer une plus grande équité. Il faudrait améliorer à la fois la collecte des données, les mesures et les études sur le commerce des services de santé afin de mieux évaluer l'importance et les répercussions potentielles de ce commerce. A cet égard, il convient de noter que les coûts et avantages potentiels du commerce de services de santé sont déterminés par les conditions structurelles sous-jacentes et par la réglementation, les politiques et les infrastructures existantes dans le secteur de la santé. Des politiques et des mesures de sauvegarde appropriées sont donc nécessaires pour pouvoir tirer profit de la mondialisation des services de santé.

Resumen

Comercio de servicios de salud

Ante la creciente globalización del sector sanitario, se examinan distintas formas de intercambio comercial de servicios de salud, empleando para ello las modalidades de comercio definidas en el Acuerdo General sobre el Comercio de Servicios. Dichas modalidades comerciales comprenden la prestación transfronteriza de servicios de salud por medios físicos y electrónicos y el movimiento transfronterizo de consumidores, profesionales y capital. El análisis de las repercusiones positivas y negativas del comercio de servicios de salud en materia de equidad, eficiencia, calidad y acceso a la atención sanitaria muestra que dicho comercio ha tenido resultados desiguales y que existe una clara necesidad de medidas de política que mitiguen las consecuencias adversas y potencien las favorables. Se esbozan algunas medidas de política y áreas prioritarias de

acción, en particular iniciativas encaminadas a abordar el problema de la «fuga de cerebros», a aumentar las inversiones en el sector sanitario y priorizar mejor esas inversiones, y a promover vínculos entre los servicios de atención sanitaria privados y públicos con objeto de asegurar la equidad. Es necesario introducir mejoras en el acopio de datos, los indicadores y los estudios sobre el comercio de servicios de salud, para poder así evaluar mejor la magnitud y las posibles repercusiones de ese comercio. En este sentido, los costos y beneficios potenciales del comercio de servicios de salud dependen de las condiciones estructurales subyacentes y de la regulación, la política y la infraestructura del sector de la salud. Así pues, se requieren políticas y medidas de salvaguardia apropiadas para sacar partido de la globalización de los servicios de salud.

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