The Growth of International Trade in Health Services: Export Prospects in North Africa

Key Messages

- International trade in health services has been expanding rapidly since the late 1990s. Its share in the world market for tourism services rose from 1.2% in 1997 to 1.5% in 2010.
- In the Mediterranean region, explicit strategies to promote these exports are implemented by private stakeholders (Morocco, Lebanon, Egypt, Tunisia, Turkey) and governments (Jordan, Tunisia).
- Although there is great complementarity between demand from European and supply from South Mediterranean, trade flows are generally South-South. This principle of neighbourliness is also observed in the other regions of the world.
- In the medium term, the international competitiveness of the health sector provides opportunities to consolidate the tourism sector and/or diversify the range of tourism services towards wellbeing services which attract a growing segment of European demand.
- Nevertheless, most European healthcare demand remains beyond the reach of practitioners in North Africa and the Middle East. However, it has not been proven that the institutional barrier represented by the current non-portability of health insurance is the main cause of the limited North-South trade in the region. Indeed, there are other major constraints on the international travel of patients that stem mainly from the specificity of health sector transaction costs.

Introduction

The acceleration of growth and job creation is a major challenge for North African Countries (NAC) which are witnessing a sharp increase in their labour force. The dominance of the textile/clothing sector and of sub-contracting in the automobile sector within the Maghreb’s industrial fabric, as well as the lack of alternative manufacturing specialization are sources of vulnerability. Consequently, new growth and export sectors must be identified. Manufacturing sector prospects are severely constrained by the opening up of markets to Chinese and East Asian competition, while mining sector activities are already quite intensive. In comparison, the opportunities in the service sectors seem to be underestimated.

This paper was prepared by Marc Lautier (Associate Professor, University Paris 13 - CEPN (Centre d’Economie de Paris Nord) - CNRS) under the supervision of Vincent Castel (Principal Program Coordinator, ORNA). Overall guidance was received from Jacob Kolster (Director, ORNA) and Nono Matondo-Fundani (Director, ORNB).

The following are thanked for their contribution: Diabaté Alassane (Principal Country Economist, ORNB), Laurence Lannes (Principal Health Economist, OSHD), Fabrice Sergent (Chief Health Economist, OSHD) and Kaouther Abderrahim (Economist, ORNA). Traduction by CLSD.

The analysis and findings of this report reflects the opinions of the authors and not those of the African Development Bank Group, its Board of Directors or the countries they represent.
Yet several trends point to the existence of enormous potential in NAC competitiveness and growth in the export of services. Of all international trade sectors, the services sector is the one that grows fastest. It should account for 50% of all world trade by 2020. This growth is driven by a substantial reduction in transaction costs thanks to information and communication technologies. It is facilitated by the ongoing liberalization of trade, investment in services and changes in the structure of world demand. Indeed, demand for services is characterized by high elasticity of income; it rises faster than average growth. On the supply side, technological progress expands the scope for international division of labour and makes it possible to outsource and delocalize a growing number of service activities. Moreover, human capital accumulation makes it possible to raise a qualified and competitive workforce for such productive activities in NACs; cultural and geographical proximity to the EU increases this complementarity potential. For all the above reasons, the tradability of services is increasing and new tradable services are emerging.

The health sector in particular seems to provide new opportunities for exporters of the South. In fact, the attraction factors of health systems in the North have gradually become commonplace. In many countries of the South, physician’s qualifications have caught up with those of their counterparts in developed countries. This improvement has led several countries to reduce their imports of health services and even to become net exporters of health services.

Medical tourism is really not a novelty, particularly in the Euro-Mediterranean region. In Ancient Greece, pilgrims and patients from all parts of the Mediterranean used to travel to Asklepios sanctuary in Epidaurus. In Roman Britain, people used to travel to the thermal spas of Bath. However, this phenomenon has for long generated only a marginal share of tourist flows. Nevertheless, since the late 1990s, medical tourism and internationalization of health services have spawned a multiplicity of seminars, general interest and specialized articles, colloquiums, committees of experts and international work groups. Such media presence substantiates the idea that a new very dynamic segment of international trade, namely trade in health services, is emerging. Nonetheless, the real contours of this activity are hard to define. Its scope is particularly difficult to gauge because there are a lot more estimates that confuse the stated objectives of developers with the reality and a lot more abstract analyses than field surveys and reliable statistics. One expert in this domain has noted that “most of the literature is speculative, polarized between those arguing for the benefits of liberalization and those arguing against”\(^1\). Another one states that: “It is indeed striking how very little is actually known on the extent to which health services are traded internationally. While some anecdotes exist with regard to the trade of specific narrow sub-sectors in healthcare, very modest knowledge exists on the magnitude of international trade in health services. (...) A literature gap remains”\(^2\).

The current situation is that little is known of the real magnitude of the world’s health services export flows and the impact that such exports have on the countries concerned. Given this background, the objective of this working document on health services export prospects in NACs is to help reduce this inadequacy. Part one proposes an estimate of the size, growth and structural elements of world trade in health services that will be used to identify several characteristics of supply in this sector, particularly the place of exporters of the South in this market. Part two focuses on the potential demand for North African health services and its growth prospects. It explains the types of barriers and obstacles to such trade. While demand is influenced by various dimensions of time and geography, the supply situation is different with Tunisia being the current main exporter in the region. However, other exporters, like Morocco, could emerge in the medium term. Hence, part three analyses the economic impact and certain challenges to health exports using the data available and relying on the experience of Tunisia and Jordan which is located further away but comparable. Lastly, the main medium-term prospects are outlined in the last part.

\(^1\) Smith 2004.
\(^2\) Herman 2009.
1. **The Take-off of International Trade in Health Services and Exports from the South**

Traditionally, international trade in health services has always flowed from South to North. Patients from the South would travel to get treatment in developed countries where more qualified staff and more efficient structures provided healthcare that was unavailable in their home countries. These imports of health services (in the form of patient travel) were sometimes funded by social insurance structures in the patient’s country of origin. However, the attraction factors in health systems in the North spread to the South, thanks to an increase in training levels, the standardization of treatment protocols and the availability of drugs and medical equipment on the world market. In many countries of the South, doctors have become as qualified as their counterparts in developed countries. Many specialists from the South currently practise in OECD countries. In response to local demand for ever more sophisticated health care, resulting from the emergence of a middle class that is concerned about the quality of services in emerging countries, hospitals have modernised their equipment. This improvement, which is not always accompanied by an improvement in public health indicators, has enabled several countries of the South to reduce their imports of health services.

It has also enabled some of them to engage in "medical tourism" and become net exporters of health services.

1.1 **Four Trade Modes**

WTO defines four modes of international trade in services, especially health services, under GATS\(^3\). They are differentiated based on the item that crosses the border: the service, the consumer, the company or the supplier:

- **Mode 1** – Cross-border trade: Delivery of services, by non-resident suppliers, beyond the borders of the country for consumption in another country. Mode 1 most resembles the traditional export of goods.
- **Mode 2** – Consumption abroad: A consumer or company moves to use services in another country.
- **Mode 3** – Commercial presence: A foreign company sets up a subsidiary or branch in another country to provide services there;
- **Mode 4** – Temporary movement of natural persons: An individual leaves his country of origin to provide services in another country.

Cross-border delivery of health services (Mode 1) was almost impossible prior to recent progress in ICTs. Recent performance in these technologies has led to the emergence of a new type of health services, namely telemedicine which can be easily traded internationally. In particular, these technologies open up possibilities of implementing an international division of labour in medical treatment. Telemedicine makes it possible to take advantage of time zone differentials. For instance, x-rays can be sent from the United States for analysis abroad\(^4\). Hence, technological changes create opportunities to relocate certain segments of activity to countries of the South. However, despite this very real potential for mutual trade in health services, telemedicine currently represents only a marginal stake in world trade. A recent study evaluates Mode 1 trade in health services at 0.01% of GDP in OECD countries (Herman 2009). The primary reason for this small percentage seems to be the lack of dissemination of telemedicine at the national level, rather than the existence of major barriers to international trade\(^5\).

Mode 3 is based on investment in health structures abroad. This mode of trade is more adapted to companies in rich countries than to suppliers in the South. Although multinationals providing hospital services are emerging in certain Asian countries like Singapore and Thailand, the development prospects for this mode of trade in countries of the South do indeed seem limited. Besides, the establishment of foreign companies in the health sector is generally controlled, subject to restrictive constraints and even prohibited sometimes\(^6\). It is a sensitive area, as evident in the difficult multilateral negotiations held on this issue under GATS. Investments in health services reportedly account for 0.2% of FDI stock entering developed countries and 0.1% entering countries of

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\(^3\) See for example: Gobrecht 2004, Smith and Blouin 2007.

\(^4\) In India, but also in Lebanon.

\(^5\) In the United States, a Government report estimated the telemedicine market at USD 380 million, but increasing 15% per year.

\(^6\) Concerning FDI stock in the health sector, see surveys by Smith (2004), Herman (2009), Holden (2005). However, none of these surveys, which are complete and serious, gives a clear conclusion on the scope and direction of this activity.
the South. In contrast, within the European Union (EU), the share of this mode of trade is probably higher. Indeed, information from a large database indicates that the share of foreign companies in the provision of health services is 16.5% within the EU on average.

In contrast, the movement of health professionals (Mode 4) has for long been the main way of internationalizing health services for professionals from the South. The migration of physicians, nurses or midwives has given rise to many studies which, though failing to gauge the magnitude of this phenomenon as a whole, provide insight into its intensity and implications (Diallo 2004, Simon and Huerst 2006). This brain drain feeds the health systems of the North with skilled professionals. In the United Kingdom, for instance, 18% of the physicians are of foreign nationality. In the Netherlands, the constitute 14%. However, this mode of trade is fraught with problems and migratory strategies that do not contribute to the consolidation or development of a productive export sector at the national level. Such brain drain rather saps national capacity. Lastly, these "exports" give rise to a form of paradoxical trade since they do not yield a corresponding inflow of foreign exchange although they may generate substantial remittances from abroad.

For these various reasons, this analysis will focus on the export of health services stricto sensu, defined as the delivery of care on the national territory to foreign patients, corresponding to Mode 2 of GATS. For countries south of the Mediterranean, it is primarily through "medical tourism" that trade in health services offers potential for development.

1.2 Trends and Size of the World Market

The growing media attention to "medical tourism" is spreading the idea that medical tourism and the export earnings it generates are in full expansion. Yet, this phenomenon is probably still in its infancy and its real scope appears to be uncertain. It is difficult to quantify and, to the best of our knowledge, has no satisfactory estimate. The first difficulty in measuring this phenomenon lies in keeping account of these flows since they are hard to gauge using the available measuring tools. A second problem, which is more institutional in nature, stems from the lack of dialogue and coordination between health services and services responsible for the economy and trade in most countries, which has led to poor organization of data at national level (Smith, Blouin, 2007). Although anecdotes abound on the subject, the real scope of international trade in health services is not known and the available figures are incoherent. Two studies respectively conducted by Deloitte (2008) and McKinsey (2008) yielded confusing conclusions. According to the first study, over 500,000 Americans reportedly travelled abroad for treatment in 2005 and world trade in medical tourism was estimated at 60 to 100 billion dollars. In the second study, the number of medical tourists was only 60,000 to 85,000 per year worldwide! The methodologies used to reach these strange findings are not explained. They seem to be based on extrapolations from interviews conducted in the United States.

Within this context of ignorance, the first questions to tackle relate to the trends in this form of trade: Is there a real upsurge in exports of health services or are observers simply more sensitive to this phenomenon? What is the volume of these exports and what percentage of services trade do they represent? Which countries are particularly present in this sector, especially in the South?

Given that a sufficient number of field surveys have not been conducted, a comprehensive statistical base is needed to answer these questions. At the international level, the only available data source is the IMF’s BOPS database containing data culled from national balance of payments. This database provides details on the goods and services trade of all countries which declare such information. Health services are classified in a sub-category called "Health-related Travel Expenditure" under the item "Travel" in the IMF nomenclature. This item can be considered as representative of Mode 2 trade in health services. To our knowledge, the only serious attempts at assessing this trade were based on this source (Herman 2009, Gobrecht 2004, Karsenty 2001, and Mortensen 2008). However, data from this source should be used cautiously because not all countries provide data for this item. Furthermore, reported data understates the reality because the Central Bank statistics fed into the BOPS database do not cover the full range of international trade in services. For this sector in particular, the data excludes cash payments and those that do not explicitly state the nature of the service provided. In summary, data from by IMF statistics is incomplete and very probably understates the real volume of trade flows. However, there is no other alternative source for estimating the volume of world trade in health services (Karsenty 2001).

To appreciate world trade trends in health services, we use the IMF database but propose a method that offsets the incomplete nature of this source. We first of all measured trends in world exports using data from exporters who provided sufficient information under the item "Health-related travel expenditure" during the 1997-2010 period.

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7 Herman Estimates (2009) from an extract from AMADEUS database.
Countries that are too inconsistent in providing such data are excluded. The value of these exports, assimilated to that of health services (Mode 2), is then compared with earnings under the item "Travel". Lastly, this ratio - percentage of health services in travel exports – is applied to the travel earnings of all the countries that provide data for this item, excluding the United States which systematically states the amount of its health-related travel expenditure.

IMF services exports statistics show that 53 countries provided enough data under the item "Health-related travel expenditure" during the 2003-2010 period, 10 in the North and 43 in the South, whereas only 13 did so during the 1997-2003 period (Lautier 2007). Given these differences in data availability, two samples have been used (1997-2003 and 2003-2010). The series of world export growth indices is designed following this method and based on these samples (Graph 1). The sizes of these country samples require that the results obtained be interpreted as an indication of growth rates: they provide information on flow trends. However, the share of these countries in total trade is high, thus making this data highly representative. For 2010 for instance, the sample used represents 52.5% of estimated health services. The data presented here and the trend it reveals is based on analysis of a significant segment of real trade.

Graph 1 shows a clear trend towards the take-off of international trade in health services in recent years. Health services exports rise faster (+176%) than "Travel" earnings (+111%) at a rate close to that of all trade services (+186%)6. Hence, measured in current dollars, world exports of health services almost tripled from 1997 to 2010. The growth differential between the health services exports of the South and those of the North is remarkable. While exports of the South have multiplied by 3.5, those of the North have doubled. This result stems, in part, from the large perimeter retained in defining the South10, but, above all, reflects a growth differential.

The valuation of world trade in health services is based on an estimation of the share of health services exports in travel services exports (Karsenty 2001, Mortensen 2008). It is preferable to rely on export data because it is generally better reported than import data. However, as Graph 1 shows, the ratio of health services exports to travel services exports is not fixed. It increases with the growth differential of exports in these two categories of services. This coefficient is therefore calculated for each year from the sample of countries that provide data on their exports (Table 1). The average ratio (World) increased from 1.2% to 1.5% between 1997 and 2010. However, this increase is particularly strong in all countries of the South (from 1.2% to 1.5%) and in the United States. Meanwhile, this percentage declines on average for the other exporters of health services in the North.

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6 And 43.5% of total declared exports of travel services.
8 Source: WTO.
10 The "South" has never constituted a homogenous and clearly defined entity. In general, the "South" is defined by default as all poor countries. In this note, the "South" is defined as the World minus the countries of the North – i.e 15 EU countries, Switzerland, Norway, United States, Canada, South Korea, Iceland, Japan, Australia, New Zealand, Israel and Singapore. This definition places most of the "emerging" countries in the South, as well as new EU members because over the period, they constitute a periphery of the EU.
The respective coefficients of each of the two regions, South and North (excluding the United States), are applied to the travel services exports of these regions in the IMF database (139 countries), excluding the United States which systematically reports the value of health services exports. Hence, the health services exports of the world, of countries of the South and of countries of the North, are obtained for each year\textsuperscript{11}.

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According to this assessment, world trade in health services yielded USD 11,766 million in 2010. It has doubled since 2003, and has been growing annually at an average rate of 8.1% since 1997 (+9.1% since 2003), a rate close to that of world trade in services\textsuperscript{12}.

However, the structure of the world market has changed profoundly over this period. At the beginning of the period, exporters from the North dominated the market. In 1997, the United States alone accounted for 26% of world exports of health services, the other countries of the North exported 41%, and countries of the South accounted for one-third.

Since then, exports from the South have been growing faster at an average annual rate of 12.3% than exports from the North, which grew by 5% annually. Since 2007, the estimated exports of health services from the South have exceeded those from the North. In 2010, the apparent market share of the South reached 54%, while that of the North was 46%. Excluding the United States, which occupies a dominant position, since it alone accounted for 24% of exports from countries of the North in 2010 and 26% in 1997 (cf. infra: Table 2), exports from countries of the South were 2.5 times higher than those from other countries of the North in 2010, whereas they were below 20% in 1997.

\textsuperscript{11} Reminder: The 1997-2000 results were obtained with a sample of 13 countries that declared their data; the 2003-2010 series is obtained from a sample of 53 countries that declared their data.

\textsuperscript{12} Our results are close to other available estimates made from more restrictive samples. Karsenty (2001) evaluates 1999 exports at 6.5 billion; Herman (2009) estimates the ratio of health services imports to travel services at 2% in early 2000s.
1.3 Emergence of Major Exporters from the South

Table 2, prepared from data declared by the IMF, highlights the position of the United States as the leading exporter. It provides two types of additional information on the world supply of health services. First of all, it reveals a very wide diversity of exporters. The leading exporters include developed countries (Canada, Belgium), emerging economies (Mexico, Brazil, Turkey) and middle-income countries such as Central European countries and Turkey. Annual growth rates are particularly high for these last categories of exporters: Brazil (+25%), Tunisia (+21%), Czech Republic (+27%), and Turkey (+12%). Exporting health services is not the specific activity of certain countries or certain regions but appears, on the contrary, to be a world-wide phenomenon.

Furthermore, countries that design and implement an explicit strategy promoting health services exports such as South Africa, Jordan, Malaysia or India do not feature on the table because they provide no data to the IMF database. Data reporting on this sector is particularly poor in Asia even though this region is reportedly the most dynamic in terms of investments and growth: Thailand reportedly receives over 500,000 foreign patients each year, while Malaysia receives approximately 100,000; Singapore is said to have received 410,000 foreign patients in 2006; in India, export earnings from health services reportedly reached USD 333 million in 2004.

Table 2: The 15 Main Exporters of Health Services in 2010 (declared)

<table>
<thead>
<tr>
<th>Health Services Exports</th>
<th>In USD million</th>
<th>Annual Growth 2003-2010</th>
<th>Share in World Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>2876</td>
<td>+ 9%</td>
<td>24.44%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>612</td>
<td>+ 26.6 %</td>
<td>5.20 %</td>
</tr>
<tr>
<td>Turkey</td>
<td>369</td>
<td>+ 11.8 %</td>
<td>3.14 %</td>
</tr>
<tr>
<td>Belgium</td>
<td>345</td>
<td>- 1.2 %</td>
<td>2.94 %</td>
</tr>
<tr>
<td>Mexico</td>
<td>289</td>
<td>+ 7.8 %</td>
<td>2.46 %</td>
</tr>
<tr>
<td>Thailand</td>
<td>233</td>
<td>NA</td>
<td>1.98 %</td>
</tr>
<tr>
<td>Italy</td>
<td>182</td>
<td>0 %</td>
<td>1.55 %</td>
</tr>
<tr>
<td>Canada</td>
<td>136</td>
<td>+ 9%</td>
<td>1.16 %</td>
</tr>
<tr>
<td>Croatia</td>
<td>130</td>
<td>+ 9.8 %</td>
<td>1.10 %</td>
</tr>
<tr>
<td>South Korea</td>
<td>89</td>
<td>NA</td>
<td>0.76 %</td>
</tr>
<tr>
<td>Tunisia</td>
<td>82</td>
<td>+ 20.9 %</td>
<td>0.70 %</td>
</tr>
<tr>
<td>Hungary</td>
<td>79</td>
<td>NA</td>
<td>0.67 %</td>
</tr>
<tr>
<td>Brazil</td>
<td>42</td>
<td>+ 25.2 %</td>
<td>0.35 %</td>
</tr>
<tr>
<td>Greece</td>
<td>39</td>
<td>-5.6 %</td>
<td>0.34 %</td>
</tr>
<tr>
<td>Slovenia</td>
<td>32</td>
<td>+ 13.9 %</td>
<td>0.27 %</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5536</strong></td>
<td><strong>N/A</strong></td>
<td><strong>47.05 %</strong></td>
</tr>
</tbody>
</table>

Source: ESCWA 2010, Table 8.

For this reason, our estimate of the world market is very probably below the reality.

2. International Demand Potential

2.1 Cost Advantages and Competitiveness Factors

The global supply of health services therefore appears to be highly diversified, in full expansion and less structured. Are there any specificities common to exporting countries, especially the emerging economies, that make it possible to identify international competitiveness factors in this sector? The data available is too tenuous to provide a basis for exhaustive research on export determinants. However, the regressions made on a few variables, coupled with analysis of the experiences of the leading exporters in the South and current supply trends, reveal certain key characteristics of this trade:

- The link between international competitiveness and per capita income level seems to be very tenuous. Yet, a plausible hypothesis is to envisage that the volume of health services exports correlates with per capita income levels, since performance and capacity in the supply of health services in principle increases with the country’s revenue. Similarly, the percentage of health services in tourism earnings should grow in step with national revenue since this is a type of service with higher value-added. However, no correlation has been noted between the value of health services exports, or their share in “Travel” earnings, and GDP per capita. This result confirms that such exports are not the preserve of the most developed countries. Exports from countries of the South are not ignored just because such countries have less financial resources.

However, health system quality is a barrier to entry into this market. This barrier takes the form of a medical performance threshold below which there are no, or only residual, export possibilities. Health system quality is very difficult to measure. WHO proposes a comprehensive indicator that measures economic and social performance rather than the technical quality of care (“Overall Health System Performance Index”). Another way of understanding this dimension is to consider that health system quality is assessed first of all in terms of its capacity to treat the most vulnerable segments of the population. In that case, the under-five mortality rate constitutes a simple indicator where there are no satisfactory multi-criteria indicators. It is noted that below a minimum performance level, which stands at approximately 30 to 40 per 1000 here, there are no export possibilities. A minimum level of health system quality is a necessary precondition for the export of health services.

- There is a strong link between health services exports and tourism activities. Without doubt, it reflects the existence of a threshold effect in the area of infrastructure (availability of flight and transport connections, a wide range of hotels, security and stability). Above all, it also means that the attractiveness of the national territory (measured by tourism flows) is a favourable condition that draws foreign patients. The relation between these two activities is automatically reinforced by the care provided to sick or wounded tourists. For the same reason, there is a growing link between the number of expatriates present in a country and its health services exports (Bangkok and Singapore benefit from this). Furthermore, healthcare provision to foreign patients encourages, through a demonstration effect, the building of a reputation, which is crucial to the development of this sector on the international market.

- The export of health services has a primarily regional dimension. It follows a "principle of neighbourliness". Exporting countries are those that have a competitive advantage (best value for money in healthcare) over their neighbours. While this notion of neighbourliness is first of geographical – proximity, common border – it may also have a cultural dimension. Malaysia, for instance, targets patients from Muslim countries, from Indonesia to the Gulf. All available surveys confirm this principle of neighbourliness (cf. infra).

Hence, in countries of the South, international competitiveness is formed initially on the basis of regional comparative advantage before any eventual broadening of markets. However, such regional competitiveness generally comes with a significant cost advantage over countries of the North. Table 3 shows the magnitude of international cost differentials for some routine treatments. Table 4 specifically compares Tunisia and France, using data from major clinics in Tunis.
In a pioneer study (UNCTAD and WHO in 1988), patient flows abroad were classified under five categories, depending on motive:

- Patients who travel abroad to seek treatment from prestigious health institutions or treatments that are unavailable in their home country;
- Patients who travel abroad for convalescence care;
- Patients who travel to specific places to benefit from natural endowments (spas, hot springs);
- Patients whose trip is motivated by economic calculations and who seek treatment that is similar to but cheaper than treatment at home;
- Elderly persons who travel to countries with more comfortable climatic and economic conditions.

Other studies classify “medical tourists” into four groups, depending on their geographical origin (Chasles 2011, Pruthi 2006). In this classification, the first group is composed of American patients, precursors of medical tourism, the second group comprises British patients, the third group is composed of patients from Middle-East countries, and the last group of patients comes from developing countries.

Whatever the case, international trade in health services (Mode 2) only exists in the form of patients travelling to healthcare providers abroad. It is the determinants of this mobility that define the nature and volume of demand. Hence, a distinction should be made between three types of demand in the case of North Africa. Demand from the North, from the Mediterranean (i.e. Europe), in the short term; demand...
from the North which can be envisaged in the longer term; and demand from countries of the South. The short term is considered to be the period during which the institutional, demographic and financial contexts remain stable. In the three cases, demand prospects depend on what drives, slows down or blocks patient flows.

2.2.1 Limited Demand from the North of the Mediterranean in the Short-Term

Despite the cost advantages of several North African countries (cf. supra) and the magnitude of healthcare expenditure in European countries, demand from North to South of the Mediterranean appears to be limited in the short and medium terms, except for a few niches. There are indeed significant barriers to trade that are institutional, economic and psychological.

Narrow Economic Incentive

A European patient needs a huge incentive to accept to travel abroad for treatment. However, such incentives are non-existent or very limited in most countries because of the scale of health insurance systems that discourage patients from seeking treatment abroad. The high level of collective payment of medical treatment, coupled with the non-portability of health insurance, act as a major obstacle to imports of health services. In France, for example, health insurance reimburses on average 75% of medical consultation costs and 90% of hospital care costs. The share not paid by health insurance is covered by additional private insurance for close to 92% of the population. The coverage rate is also very high in Germany, Spain, Netherlands, Belgium and most of the EU. In countries without a waiting list, such as France, the non-portability of insurance absolutely discourages patients from travelling abroad to seek healthcare that is covered. For international trade to become a reality in this sector, agreements ought to be signed between foreign service providers and financing institutions. Such agreements currently do not exist and seem to be difficult to establish. A clinic in Tunis once proposed to France’s CNAM a rehabilitation project for alien workers at costs that were three times lower than the costs in France. Its implementation required a bilateral agreement. It was never possible to reach one. This failure reflects the strong reticence of institutions in countries of the South that are potential importers of healthcare (cf. infra).

Certain European countries have waiting lists due to limited supply of healthcare (United Kingdom, Italy, etc.). The British system (National Health Services) provides care that is partly free, but staff shortage has led to waiting periods that can sometimes be very long. To get coronary bypass surgery, it is not rare to have to wait for over 6 months (Chasles 2011). Similarly, the waiting period for getting a hip implant ranges from 12 to 18 months (Bose & Sumathi, 2008). In these areas, however, healthcare providers south of the Mediterranean face competition from more renowned health systems such as those of France or Switzerland. Hence, North African clinics and practitioners can only focus on the lower and medium segments of the sector, such as European households that do not have enough resources to seek treatment in France, but enough to travel to Tunisia, for instance. This segment of the market is narrow.

While non-portability is great protection against imports, international trade prospects are less marginal for treatments that are not covered by health insurance. The segments most cited are plastic surgery and certain dental treatments. Healthcare cost reimbursements in these areas are limited or non-existent:

- Plastic surgery, in particular, is privately financed entirely by patients. The sector has been organized into a market in which clients/patients choose from among competing surgeons based on certain criteria such as price. Hence, European clinics frequently project themselves as commercial entities and their clients generally adopt an approach that is more consumerist than therapeutic. Hence, Tunisia or Morocco’s benefits of comfort and price could tempt part of European demand to move abroad. The stake is substantial since this activity, though poorly estimated, has been expanding rapidly since the end of the 1990s in Europe. France is one of the main markets, together with Spain, Germany and the United Kingdom. According to ISAPS, the number of operations reported to have reached 582,000 in 2010.

- In Europe, dental care is not equitably reimbursed in all countries. However, as regards prostheses and dental implants, most of the cost in all countries is borne directly by patients. These operations are very expensive, each costing 300 to 2000 Euros. They constitute a market that is difficult to evaluate. A comparison of

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15 Sanders et al. 2004.
16 Author’s estimate based on unpublished data.
17 Sources: Atelier groupe BNP Paribas 22/12/05 ; Key Note 3/6/2011.
several sources suggest that the world market represented approximately EUR 2 billion in 2010, with Europe accounting for 50% of this figure.

Healthcare providers south of the Mediterranean offer competitive costs for these treatments, as evident in Tunisia’s example in Table 5.

Table 5: Comparative Costs of Dental and Plastic Surgery (in EUR)

<table>
<thead>
<tr>
<th>Treatment / Cost as % of cost in France</th>
<th>France</th>
<th>Tunisia</th>
<th>Relative Cost in Tunisia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal crown</td>
<td>400</td>
<td>150</td>
<td>38%</td>
</tr>
<tr>
<td>Ceramic crown</td>
<td>900</td>
<td>350</td>
<td>39%</td>
</tr>
<tr>
<td>Dental implant</td>
<td>1500</td>
<td>1000-1300</td>
<td>67-87%</td>
</tr>
<tr>
<td>Liposuction</td>
<td>3000</td>
<td>2500 (*)</td>
<td>83%</td>
</tr>
<tr>
<td>Facial surgery</td>
<td>5000</td>
<td>3500(*)</td>
<td>70%</td>
</tr>
</tbody>
</table>

Sources: Interviews and Table 3; (*) “All inclusive”

High Transaction Costs

However, the potential for monetary gain, which depends on reimbursement rates and comparatives healthcare costs, is not enough motivation to import health services. Psychological variables also limit the mobility of patients. The existence of a cost advantage abroad for a medical procedure that is not covered by social insurance will motivate patients to travel only if the psychological cost of travelling abroad is lower than the expected monetary gain. If Ct is the psychological cost of travel and treatment abroad; Pd, the domestic cost of the procedure; and Px, the price abroad, then for price elasticity of given demand, export would be possible only if:

Ct < Pd - Px

Taking the example of facial surgery (Table 5), if the psychological cost of treatment in Tunisia is above EUR 1500 for a French patient, he will not travel and there will be no international trade.

This type of obstacle to trade depends on price elasticity of demand and transaction costs for patients. There is only partial data on price elasticity of healthcare consumption. In a paper on the effects of introducing price competition in Germany and the Netherlands, Schut et al. (2003) show that price elasticity is high and rising in Germany, whereas it is negligible in the Netherlands. They also maintain that such elasticity is lower for elderly persons. On the plastic surgery market, the results obtained are variable. In a first paper, Krieger and Shaw (1999b) conclude that American patients are “moderately sensitive to price” (62.3%). In another, they show that a 40% decline in average rates at UCLA led to an increase of 250% in the number of procedures and of 52% in revenue four months after the price change (Krieger and Shaw, 1999a). Other authors consider that since plastic surgery is a luxury good, high prices increase demand (Alsarraf and al 2002).

Asymmetry of information is a major characteristic of the patient-doctor relationship. One of its consequences is the high level of transaction costs for patients when faced with a competitive offer. The cost of identifying, assessing and selecting healthcare providers is high since patients do not have comparative information on the quality of services proposed and the possibilities of testing to make comparisons are limited. According to Hepner (2003), candidates for plastic surgery on the French market, for example, choose a surgeon based primarily on the recommendations of their close relations (50.5%), the advice of their physician (40.5%), and lastly other information sources such as advertising or the internet (9%). Hence, the lack of autonomy in medical demand reduces the potential for using this market in general and the international market in particular. In this sector, the importance of reputation and trust significantly raise the psychological cost of travel abroad.

The psychological cost is determined in particular by the lack of continuity in the medical service when it is provided abroad. The first competitive disadvantage of healthcare exporters relates to support and post-operative care. The following questions constitute a major impediment to the expansion of this activity: Upon return to the home country, which physician will provide additional care in case of complications? Who will pay and take responsibility in case of medical malpractice or poor treatment abroad? Neither private nor public insurance cover this type of risk. It is particularly high in plastic surgery where, according to the association of French specialists, surgeons have a probability of 25% that a patient will file a complaint each year and patients equally have a probability of 25% that they will win (Branchet 2003).
Hence, in the United States for example, insurers set a minimum gain threshold of USD 10,000 that encourages patients to travel. This sum of USD 10,000 represents the psychological dimension of transactions costs for the patient. Another survey conducted in the United States showed that 88% of households accepted to travel to get better value for money in healthcare, but only 39% would travel abroad if they stand to save at least 50% of the cost. Hence, for 61% of the population, the psychological cost of travel is reportedly higher than 50% of the medical cost. The projection of such a threshold on trade in health services between Europe and North Africa considerably reduces its potential. Another source, focusing on English patients treated abroad, indicates that only 13% of them saved more than GBP 10,000 and 71% saved more than GBP 2,000.

2.2.2 Huge but uncertain Long-term Demand from the North

In the longer term, changes in the structure of European demand for health services suggest that the movement of European patients towards the South for economic reasons may intensify. Ageing of the European population would be the primary cause.

Over the next 30 years, the median age will keep rising in European countries because of ageing baby boomers, longer life expectancy and a decline in fertility. By 2030, the dependency ratio of the elderly (number of persons over 65 per worker) will double to 0.41 on average within the EU (European Commission 2005). The ageing of the population will increase pressure on health financing systems and call for adaptations. According to the OECD, by 2040 this trend will increase the share of health expenditure in the revenue of EU countries by almost 50% (OECD 1998). Indeed, health expenditure is higher for the elderly. In Europe, the ratio of health expenditure on the elderly to expenditure on the rest of the population is equivalent to three, especially because the cost of healthcare depends mainly on the duration of hospitalization (Graph 3).

This doubling of the burden per worker should be financed by productivity gains and by savings on healthcare costs for the elderly. The impact of technological progress is uncertain. The consumption behaviour of patients and the prescriptive role of physicians build a demand function that does not always decline with a rise in price, contrary to the format of idealized rationality in economics textbooks. Consequently, through the phenomenon of induced demand, technological progress in the medical field, which broadens treatment possibilities, often tends to increase rather than reduce health expenditure. Given current behaviour, savings will thus be generated from prolonging the period of good health and autonomy for the elderly.

In this regard, exploiting the gains from international trade is the second promising option for saving on resources. This option has not been tapped for now, but the stakes are high and are already arousing some career interests and generating prospective studies.

Graph 3: Cost Equation in Public Hospitals in France

Source: Author’s calculations based on ATIH data.

19 Treatment Abroad Medical Tourism Survey.
20 A World Bank team produced several studies aimed at showing gains from international trade in health services for the financing systems of rich countries. See, for example, Mattoo & Rathindran 2006, Mattoo 2007.
This is because the long-term prospects of international demand from European countries depend on the measures taken to adapt to hardening economic and demographic constraints. Current trends indicate that reforms should ideally be oriented towards achieving a more competitive health system. Reimbursement rates are declining in Europe for many kinds of treatment and a growing number of private insurers are financing healthcare. If Europe’s future lies in a scenario of competitive health, it must be ensured through the dismantling of trade barriers like the non-portability of health insurance and concurrent liberalization of trade in health services. This barrier can either be tackled through reform or circumvented. For governments, the alternative is to allow or disallow the portability of (public or private) insurance, although both options could have similar results on trade liberalization:

- If portability becomes wholly or partially possible, then the institutional barrier to trade will disappear or reduce and Mode 2 international trade will develop;

- If non-portability is maintained and health costs continue to rise, healthcare rates will decline and the segment of health insurance subject to such non-portability will narrow. The direct contribution of households will increase and the opportunity cost of treatment abroad will reduce. This trend encourages more intensive use of competitive foreign healthcare services by households. Hence, the contraction of health insurance coverage will stimulate recourse to healthcare imports.

However, interviews conducted in France among the key institutional stakeholders of the health sector show that they remain very reticent about envisaging a real opening up of the market to foreign exports from the South, from North Africa, for example.

### 2.2.3. South-South Trade

All available data and surveys underscore the regional predominance of international trade in health services. In the case of Tunisia, 84% of foreign patients came from neighbouring countries in 2003 (70% in 2007); in Jordan, neighbouring countries accounted for 87% of foreign patients in 2005; 61% of health imports in the United Kingdom come from the EU, 88% of Germany’s imports come from the EU and Switzerland (Mortensen 2008); Hungary exports primarily to Austria and also to Rumania and Germany (Obermeier 2009). The success of Thailand and Singapore in Asia (which are respectively close to the poorest ASEAN countries and to Southern China) and of Indonesia, reflect this principle. In Thailand, 90% of the foreign patients treated in 2002 were local expatriates or expatriates of Asian origin (Table 6).

<table>
<thead>
<tr>
<th>Origin of Foreign Patients (%)</th>
<th>Neighbouring Countries</th>
<th>Neighbouring Countries</th>
<th>Rest of the World</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tunisia (2003)</td>
<td>84</td>
<td>16</td>
<td>-</td>
</tr>
<tr>
<td>Jordan (2005)</td>
<td>87</td>
<td>-</td>
<td>13</td>
</tr>
<tr>
<td>Thailand (2002)</td>
<td>90</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Malaysia (2003)</td>
<td>70</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Singapore (2002)</td>
<td>63</td>
<td>31</td>
<td>6</td>
</tr>
</tbody>
</table>


Hence, health services exports are often driven by shortcomings in neighbouring countries, to the same extent that they are "drawn" or "attracted" by the performance of the national health system. Patients travel from a situation of shortage and poor quality towards (even relative) abundance in neighbouring countries. Regional comparative advantages are localized. They are based on the combination of a set of relative variables that include revenue and cost differentials, the size of the middle class, income inequalities and quality disparities between health systems.

Demand from patients in the South is currently the main component of the demand that targets exporters in the South. The growth

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21 Interviews with CNAM, CLEISS, the Directorate for Social Security, the Fédération Nationale de la Mutualité Française (FNMF), and the doctors’ union (AGF).
prospects of such South-South trade are both stronger and more solid than the prospects of trade with the North. The possibility for households of the South to travel abroad to seek healthcare depends first of all on the gap between their individual revenue and the quality level of the local health system. Such travel will take place if this differential threshold has been exceeded. Lastly, the precise destination of such demand depends on the purchasing power of the household and on the health services offered by neighbouring countries.

- Above a certain income threshold, the health systems of neighbouring countries become competitive with more advanced systems and specialists, and cost ceases to be a concern. Hence, the richest families can choose the most renowned healthcare providers in the world, in Europe or the United States.

- Middle-income families from neighbouring countries, that have a sufficient income to procure costly services such as healthcare, but whose purchasing power is curtailed by hard budgetary constraints, hold the main external demand potential for countries of the South which have a regional comparative advantage in “health”. The corresponding revenue interval is that of households that travel within but not out of the region. All depends on the absolute income of households and a set of related prices (cost of transport, accommodation, health...).

One way of estimating the potential of this last type of demand is to rely on the growth prospects of the middle class in neighbouring countries. According to Kharas (2010), who retains a daily expenditure range per household of 10 to 100 dollars, in purchasing power terms, the middle classes reportedly represented 105 million persons in North Africa and the Middle East (MENA) in 2009 (16% of the European middle class), and should reach 234 million in 2030 (34% of Europe). Assuming that these households devote 5% of their income to health and that their average income is USD 50 per day, then recourse to regional healthcare providers by only 1% of patients would currently represent a regional market (MENA) of close to USD 1 billion per year. Another method for estimating regional demand is to take into account private expenditure on health. In countries south of the Mediterranean (including Jordan), total healthcare expenditure directly financed by households reached USD 12.5 billion in 2010 (Table 7). The next stage is to estimate the ratio of healthcare imports to total expenditure. This calls for specific surveys. In Libya’s case, comparison of the findings of the 2005 survey (Lautier 2007) with WHO data shows that this ratio is probably above 10%. A ratio of 5% would in fact represent a sub-regional market of approximately USD 600 million.

### Table 7: Health Expenditure South of the Mediterranean

<table>
<thead>
<tr>
<th>2010</th>
<th>Health Expenditure /GDP (%)</th>
<th>Share of Public Spending (%)</th>
<th>Share of private Spending (%)</th>
<th>Value of Private Spending (in USD million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morocco</td>
<td>5.2</td>
<td>38</td>
<td>62</td>
<td>1426</td>
</tr>
<tr>
<td>Algeria</td>
<td>4.2</td>
<td>78</td>
<td>22</td>
<td>1503</td>
</tr>
<tr>
<td>Tunisia</td>
<td>6.2</td>
<td>54</td>
<td>46</td>
<td>1253</td>
</tr>
<tr>
<td>Libya</td>
<td>3.9</td>
<td>69</td>
<td>31</td>
<td>1098</td>
</tr>
<tr>
<td>Egypt</td>
<td>4.7</td>
<td>37</td>
<td>63</td>
<td>6440</td>
</tr>
<tr>
<td>Lebanon</td>
<td>7</td>
<td>39</td>
<td>61</td>
<td>2643</td>
</tr>
<tr>
<td>Jordan</td>
<td>8</td>
<td>68</td>
<td>32</td>
<td>683</td>
</tr>
</tbody>
</table>

Source: Author’s calculations based on WHO and WDI data.
3. Challenges and Impact of Health Services Exports

An accurate assessment of flows in health services and of their impact in the region is beyond the scope of this study. The idea here is to highlight certain realities of this trade and its challenges for national economies and health systems. These aspects will be illustrated by the experiences of Tunisia, which is the leading exporter of health services in North Africa and of Jordan, its only major competitor south of the Mediterranean, which particularly attracts many Libyan and Egyptian patients.

3.1 Export Earnings

In a previous study, it was estimated, based on a field survey, that Tunisia received 42,000 foreign patients in 2003 (Lautier, 2007). This figure is taken as the starting level for Tunisia in official estimates, which places the number of foreign patients at almost 60,000 in 2005 and 102,000 in 2007. This is consistent with data on export earnings. Their projection corresponds to the entry of almost 150,000 foreign patients in 2010.

According to Central Bank data cited by the IMF, Tunisia’s direct export earnings for health services were indeed USD 82 million in 2010, compared to USD 22 million in 2003. However, these figures apparently do not include billing of healthcare to foreigners declared by private clinics and by a few public establishments concerned. The total cost of healthcare adds the cost of medication, and the fees of physicians and external surgeons to the bill of the clinic. Hence, the total healthcare cost is approximately 2.5 times the bill of the clinic. If this coefficient is applied to direct exports of health services, then total health services exports would reach USD 205 million in 2010.

Furthermore, exports of health services stricto sensu (medical and pharmaceutical treatment) do not generate only the export earnings resulting from provision of care to foreign patients. Such healthcare also generates subsistence expenditure in Tunisia for the patients themselves (preparation, convalescence), for their families or those accompanying them. Even with a conservative estimate of the duration and cost of stay, health services exports would generate total induced subsistence expenditure equivalent to 90% of their value. Consideration of this additional expenditure would raise total earnings in foreign exchange generated by health services exports to USD 389 million in 2010 (Graph 5).

Graph 5: Export Earnings Resulting from the Treatment of Foreign Patients in Tunisia

Source: Calculations of the author

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22 Source: Ministry of Health.
23 On average, the cost of medication represents 70% of the clinic’s bill while medical fees account for 80%.
In Jordan, health services exports are more difficult to assess because data are not reported under this head in the balance of payments. The figures provided by the Ministry of Health indicate that Jordan attracted 108,000 foreign patients in 2005, compared to 98,000 in 1998. Hence growth in this sector is a lot more modest than in Tunisia. Estimates of the annual amount of health services exports vary according to sources, and reportedly range between 500 and 1000 million dollars. Most of the patients come from the region. As in Tunisia, health services generate huge related subsistence expenditure. Patients from Saudi Arabia, Libya and Yemen who travel to Jordan are indeed accompanied by more than three persons on average.

3.2. Other Economic Contributions

The resilience of health services exports, coupled with tourism activities and fragile economic growth, is reflected in the growing impact of this activity and induced services within Tunisia’s economy. Over the period, the relative weight of this sector has reportedly doubled (Table 8).

Table 8: The Impact of Exports Health and Induced Services in Tunisia

<table>
<thead>
<tr>
<th>(%)</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports of health and induced services / export of tourism services</td>
<td>6.5</td>
<td>6.8</td>
<td>7.7</td>
<td>8.6</td>
<td>9.6</td>
<td>11</td>
<td>14.2</td>
<td>14.7</td>
</tr>
<tr>
<td>Exports of health and induced services /GDP</td>
<td>0.38</td>
<td>0.43</td>
<td>0.51</td>
<td>0.57</td>
<td>0.64</td>
<td>0.73</td>
<td>0.90</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Source: Author’s estimates

The contribution of these exports to GDP is less than 0.9% (in 2009) because the production of these services includes intermediate consumption which reduces their value-added. However, the rate of value-added for health services (stricto sensu) is high, at approximately 60%-65%. Furthermore, the small volume of health services imports enables them to make a contribution to the trade balance that exceeds their weight in production or exports. In Jordan, healthcare exports represent approximately 4% of GDP and close to 15% of tourism services exports, according to available data.

To estimate the total contribution of health services exports to the economy, inter-branch spill-over effects also have to be taken into account. Sale of the abovementioned induced subsistence services, rather takes place downstream after delivery of health services. However, it also generates expenditure upstream in the form of purchases from the other branches of the economy. This is reflected by a multiplier effect whose intensity is measured in an input-output table. The evaluation of this coefficient, by two studies conducted in France and Thailand, suggests that the activity multiplier for health services is approximately 1.5 (Auray and Duru 1995; Janjoeren and Supakankunti 2002). This means that an increase of 1000 in final demand directed at physicians and clinics induces, upstream, an increase of 500 in intermediate demand directed at other sectors of the economy.

Furthermore, healthcare activities generate powerful spill-over effects on the pharmaceutical industry; both in the short-term through induced purchases and also in the long-term through the support provided to build the sub-sector (recognition, expertise, trade opportunities, etc.).

Due to the average level of qualification in the health sector, the productivity of labour is high and exports in this sector create relatively less jobs than in other branches. Productivity in the health sector is about 1.5 times higher than in the tourism sector in Tunisia. A comparison of the contribution of health services exports to that of the entire sector shows that the number of jobs created through exports was estimated at approximately 5000.
comprising 2800 medical jobs and over 2200 jobs for hospital support staff in 2003 (Lautier 2007). The intensity of job creation through induced subsistence services is higher, and actually represents 5430 jobs\(^{22}\). A projection of these results on 2010 activities, assuming a stable employment/foreign patient ratio, yields an estimate of approximately 37,000 jobs generated directly by healthcare exports in Tunisia, including close to 20,000 in subsistence and accommodation services, close to 10,000 medical jobs (physicians, nurses) and approximately 8,000 hospital support staff jobs.

For Jordan, there are no reliable data on the contribution of healthcare exports to employment. The Korean International Medical Association (KIMA) estimates that 6 medical jobs are created through the treatment of 100 foreign patients; an assessment that is consistent with our estimates for Tunisia. When applied to Jordan, which received 108,000 foreign patients in 2005, induced medical jobs were created for approximately 6,500 persons.

3.3. Consequences for the Health System and Risk of Medical Dualism

In the analysis of the effects of exports on national health systems, questions of access to healthcare, equity and risk of institution or accentuation of “medical dualism” are predominant. It is stated in page 3 of the summary report of an UNCTAD-WHO joint conference that “the benefits that may accrue from the development of trade opportunities must be weighed against the potential negative effects” (UNCTAD 1998). This is a core concern in meetings and debates on the challenges of GATS and trade liberalization in the health domain (Blouin 2007; Drager 2004; Smith and Blouin 2007). It is based on the idea that the development of exports is inconsistent with public health objectives because it risks provoking a diversion of medical resources towards the treatment of foreigners to the detriment of national patients. In this regard, resources and investments would be diverted towards healthcare and diseases that are inconsistent with national needs and chosen because of their export trade potential. The result would be the formation of a “dual” health system and a contradiction between export and public health objectives.

This fear is nurtured by the specificities of countries of the South that are precursors of medical tourism such as South Africa or Brazil, where sophisticated private healthcare of international renown coexists with a lack of access to basic healthcare for a large segment of the population. In support of this idea, situations such as the rural exodus of physicians are cited. A case in point is India where 73% of physicians practice in the city, whereas 70% of the population lives in rural areas (Chasles 2011). However, current studies show that this concern is not based on any established causality between export growth and inequitable distribution of healthcare. Available experiences rather show that most major exporting countries of the South have public health systems that provide broad access to healthcare. This is the case for Thailand and Singapore in Asia and for Tunisia and Jordan. International trade is too limited a force to generate medical dualism. In contrast, dualism is created by inequalities in resource distribution and imbalances resulting from private sector development that is too exclusive. In Bangladesh, physician absenteeism in public hospitals stands at 74%; in Guinea, the richest quintile of the population benefits from 48% of public health spending (Smith, Blouin 2007). Hence, improving equity in this domain requires public policies that regulate the supply of medical services and consolidation of the public health system (control of resource distribution; reduction of pricing discrepancies, mandatory service in the public sector upon graduation, etc.). In the final analysis, there may be a link between exports and medical dualism, but that causal link would start with dualism before moving to exports, viz: the existence of a range of sophisticated services that are non-consumable for most of the population may indeed attract for foreign patients. For now, exports do not create dualism. If anything, dualism rather precedes exports.

From another perspective, the development of health services export activities may help to consolidate the national healthcare delivery structure and improve its technical performance. Indeed, the first consequence of growth in exports is an increase in the incomes of the professionals concerned. Such income gains curb the incentive for medical staff to migrate to richer countries. Brain drain is very high in certain countries of the South\(^{26}\). Such emigration represents a considerable social loss of public investments in the training of physicians and nurses and do not benefit the generally poor countries that pay for

\(^{22}\)Estimates from employment and tourism value-added data produced by WTT.

\(^{26}\)In Ethiopia, for example, 56% of physicians trained at the Addis Ababa Faculty of Medicine between 1984 and 1994 had migrated by 1996; in Ghana, of the 65 physicians who graduated in 1965, only 22 were still in the country in 1997; the migration of Jamaica’s medical staff is such that 50% of nursing positions cannot be filled... (Gobrecht 2004, UNCTAD 1998, World Bank 2003).
Such staff migration is prompted above all by the differential between home salaries and those paid abroad. When this differential exceeds the opportunity cost of departure, it triggers emigration. The emergence of better career and income opportunities through the development of healthcare export activities creates a centripetal force that increases the opportunity cost of departure and slows down the emigration of medical staff. Besides, broadening effective demand through exports, could lead to investment in more sophisticated equipment which the domestic market alone cannot amortize. This will enhance the technical performance of the sector. The generalization of international procedures for the certification and accreditation of clinics in exporting countries (Thailand, Tunisia) also helps in consolidating the supply structure.

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27 According to the World Bank, the 600 South African physicians practising in New Zealand represent an estimated loss of USD 37 million for South Africa (World Bank 2003).
4. Prospects

A study of available experience shows that countries of the South have two market outlets. The first wave of international demand available to them is composed of patients from neighbouring countries. South-South trade is currently the main outlet for healthcare exports. However, the potential for trade with countries of the North appears to be very high, although it falls within a horizon that is more remote and highly uncertain. For the countries concerned, the prospects for developing and promoting health services exports are distinct depending on the segment targeted.

4.1. Markets of the South: Regional Import Substitution

Although there is obvious economic complementarity between demand from European and supply from South Mediterranean, the reality of trade is South-South and has a regional dimension. The principle of neighbourliness observed here is found in the other regions of the world. Such regionalization of trade stems in particular from the "intermediate" quality of the healthcare supply from countries of the South whose attraction hardly spreads beyond the region. Extra-regional patients – i.e. located beyond a certain distance from the service provider – may opt for more advanced healthcare centres situated in Europe or the United States. However, South-South patient flows are quite often replacing the previous South-North flows. The regionalization of trade in health services stems for the most part from an import-substitution process at national level: practitioners in the South are treating patients who previously travelled to Europe.

International trade in health services in countries of the South is therefore driven primarily by regional comparative advantages. Effective export flows depend on both the absolute performance of the exporting country and its performance gap with its neighbours. Hence, the volume of such trade depends on the size of the regional market, a value that is more relevant than that of the world market to assess the national export potential. In this regard, Thailand which is close to China, Myanmar, Laos and Cambodia or Malaysia, which is close to Indonesia, seem at first sight to enjoy greater favour than Tunisia, Jordan or Morocco whose regional market is narrow.

The main challenge for all exporting countries is to expand this regional import-substitution drive by enhancing their competitiveness and broadening their scope of application. In the medium term, the essential challenge in North Africa for this sector, as for others, remains opening up South-South trade among Arab countries. The North Africa-Middle East region is one of the most fragmented commercial areas in the world. Despite the institution of a regional free trade agreement between Morocco, Tunisia, Egypt and Jordan (Agadir process), trade between South Mediterranean countries accounts for only 4% of their external trade on average. Decompartmentalizing these markets can unlock great potential for regional trade.

Furthermore, a country like Tunisia, or Morocco, has an enormous potential market south of the Maghreb, from Mauritania to Chad, and even beyond, in West Africa. The regional commercial base of Maghreb exporters can be extended to the Sahel zone, on condition that the cost advantage over the North is maintained and transport networks are sufficiently efficient. For obvious reasons of proximity and complementarity, Mauritania is the preferred target for extension of this regional export area; Senegal could come later. Nevertheless, surveys would be needed to define the precise scope of this new regional potential.

The promotion of exports to this area would be facilitated by the conclusion of bilateral agreements between governments to harmonies legal and technical frameworks of activity. Agreements on mutual medical coverage and/or temporary transportability of social insurance for visitors and tourists could be a first step. However, at the current stage when the sector is still nascent and flows are small, the priority promotional measures should target the construction and consolidation of the regional market. At this stage, the following is suggested:

- Reception of more medical staff from targeted countries for short and long-term training; the development of twining and
partnership agreements between clinics, hospitals and associations of health professionals.

- The provision and promotion of a complete set of healthcare services targeting the major private or semi-public prescribers from target countries (corporate health insurance contracts) such as branches of foreign companies, international organizations and their offices, large regional companies (ex: SNIM in Mauritania), insurance companies.

4.2. Markets in the North: Tourism-Health Synergies

The consumption of health services generates high and rising expenditure in countries of the North. Close by, certain countries of the South have an obvious competitive advantage. These complementarities notwithstanding, the degree of openness of the health services sector remains very low. World trade in this sector represents only approximately 0.5% of the health expenditure of OECD countries alone (Lautier 2007). Strong barriers prevent the expansion of this trade. Such barriers stem from the peculiar nature of these health services which are both “regulation-intensive” and “trust-intensive”. This generates substantial transaction costs. The non-portability of health insurance for patients is a patent example of this first aspect. This barrier depends on regulatory trends in importing countries. For the second barrier, we have already mentioned the psychological cost of travelling abroad. This cost relates first of all to patients’ risk aversion and their assessment of this risk, which is not negligible. Health providers from the South absolutely have to invest to reduce this cost by using the various measures available (branding policy; establishment of international networks of service providers; broader contractual guarantees; international accreditations, etc.).

In this regard, the scale of tourism activities in the countries concerned constitutes a precious asset from promoting health services exports. Tourist facilities that attract foreigners automatically generate flows of patients towards clinics in Tunisia, Morocco or Egypt. Accumulating a good number of (well) treated foreign patients lends experience and renown which both build trust in a health system and improves its international image. Thus tourism helps to reduce the psychological distance between European patients and the healthcare supply in Tunisia or Morocco. It contributes to the international dissemination of the (good) medical reputation of these countries, so long as these experiences have sufficient international visibility.

Conversely, health sector competitiveness opens up potential for diversification and improvement of the quality of tourism services in segments that attract a growing share of European demand. Tourism and healthcare are services that target households and, with regard to international competitiveness, these two areas have several factors in common. The development of these two activities depends in particular on a set of externalities as well as public and semi-public goods, whose absence constitutes an obstacle to entry in both cases. Boosting competitiveness in any of the two sectors will automatically help to enhance competitiveness in the other.

In the case of Tunisia, in particular, which has focused on low range specialization, the tourism industry must implement a strategy of bottom-up differentiation. Its range of mass tourism services is sold at low prices and the revenue per tourist is particularly low as shown in Graph 6. Indeed, compared to its main competitors, Tunisia has a real competitive advantage in the health/wellbeing sector.

The coherence of such a differentiation strategy depends on a combination of good quality seaside attractions and a comparative advantage in the medical and paramedical sectors. This translates into a steady supply of services: from conventional seaside-type tourism to services with a higher content of paramedical and medical care such as thalassotherapy, spa treatments, cosmetics, plastic surgery or prosthetics. The targets are persons in good health (who move about without difficulty) and not patients. Such services target healthcare, and ultimately medical care, consumers rather than patients. The main market is probably dominated by a female clientele and those above the age of forty who express stronger demand for these types of services. Such specialization provides the opportunity for less commercial seasonality and higher expenditure per tourist.

Developing a range of tourism services that focus on health and wellbeing would be well adapted to the growth prospects and

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28 The competitiveness factors common to tourism and health services include transport infrastructure, hotels, quality of service, language proficiency and proximity, security and stability, public health and medical risks, exchange rate.
ageing of European demand. An analysis of tourist consumer behaviour by age indeed shows a positive relationship between specialization in wellbeing tourism and the attraction of a destination for the elderly. The weakness of the health system thus constitutes a potential problem for Morocco where demand and needs should increase since a growing number of elderly Europeans travel there for long periods, especially around Agadir and Marrakesh. Similar difficulties are also expected in Egypt where operators seek to attract British pensioners to the Northern coast.

Source: Calculations of the author
International trade in health services has been expanding rapidly since the late 1990s. Its share in the world market for tourism services rose from 1.2% in 1997 to 1.5% in 2010. Exporters of the South, defined as a large geographical area, are the most dynamic in this sector. Since 2007, estimated health services exports from the South have exceeded those from the North. In 2010, the apparent market share of the South was 54% and that of the North was 46%. In the Mediterranean region, explicit strategies to promote these exports are implemented by private stakeholders (Morocco, Lebanon, Egypt, Tunisia, Turkey) and governments (Jordan, Tunisia) and envisaged by multilateral organizations. Health services exports have, for instance, been targeted for Tunisia by the ITC (2004) and by the World Bank (World Bank 2008).

Although there is great complementarity between demand from European and supply from South Mediterranean, trade flows are generally South-South. This principle of neighbourliness is also observed in the other regions of the world. The current political and institutional changes in North Africa will certainly have a crucial effect on the trends of regional trade in health services. In the short term, instability diverts patients to other territories and fragilises health systems. In the medium term, the international competitiveness of the health sector provides opportunities to consolidate the tourism sector and/or diversify the range of tourism services towards wellbeing services which attract a growing segment of European demand (spa treatments, balneotherapy, thalassotherapy, etc.). Tourism and exports of health services are indeed complementary. Tourism generates flows of foreign patients to local clinics and practitioners; upon return to Europe, these patients become precious vectors that promote the local brand and reputation. Tourism thus helps to reduce the psychological distance between European patients and the local supply of healthcare services. It reduces the psychological cost of travel abroad. Conversely, the good international reputation of a health system lends credibility and greater value-added to wellbeing tourism services.

Nevertheless, most European healthcare demand remains beyond the reach of practitioners in North Africa and the Middle East. However, it has not been proven that the institutional barrier represented by the current non-portability of health insurance is the main cause of the limited North-South trade in the region. Indeed, there are other major constraints on the international travel of patients that stem mainly from the specificity of health sector transaction costs. Before developing ambitious export promotion strategies in this domain, the stakeholders concerned should first evaluate the relative impact of these two types of trade barriers. To determine whether liberalization measures – such as reform on portability – can generate a significant expansion of trade, there is need to examine patient consumer behaviour when the supply of health services is organized in the market. In this regard, an initial survey could focus on health services trade trends within the EU, since recent regulatory reforms have, de facto, opened up the health sector to foreign competition (within the EU). Another option is to analyze and estimate the scope of international trade in plastic surgery. In this sector, no health insurance system prohibits any patient from travelling abroad and, in theory, international competition can work. In both cases, the main difficulty lies in obtaining the relevant data.
Summary of Conclusions and Recommendations

Objective: Quality; Avoid price differentiation; market segment too narrow

As concerns saleable healthcare services in the North, the services provided by practitioners south of the Mediterranean face competition from more renowned health systems (France, Switzerland).

→ European households, whose financial resources are not enough to procure treatment in France, but enough to travel to North Africa for treatment, constitute a narrow target.

In the South,

→ trade regionalization is based on competitiveness based on quality differential and not on cost advantage.

Reduce the psychological cost of treatment abroad

Such cost increases with:

- The lack of continuity in medical services;
- The lack of answers to the following questions:
  Upon return to the home country, which physician will provided additional care in case of complications? Who will pay and take responsibility in case of medical malpractice or poor treatment abroad?
- Non-coverage of this type of risk by private and public insurance.
- Anxiety and the growing demands of patients.

Measures:

- Branding policy, international accreditations, but above all:
- Institution of international networks of practitioners
- Expansion of contractual guarantees (Socialisation of risks probably necessary).

Priority 1: Regional Import Substitution

Target: Middle-income households; able to travel within but not outside the region.

Volume: Middle class estimate: 105 million in MENA in 2009; 234 million in 2030.

Condition: Broaden and densify the regional base of healthcare exporters

→ Open up South-South trade between Arab countries; beyond Agadir
→ Expand the trade area to the Sahel

Possible measures:

→ Reception of medical staff from target countries for short and long-term training
→ Development of twinning and partnership agreements between clinics, hospitals and associations of health professionals.
→ Establishment and promotion of a whole range of services destined for major private or semi-public prescribers in target countries.
Priority 2: Tap, develop and exploit the synergies between tourism and health

- Tourism lever

Health services are "regulation-intensive" and "trust-intensive": High Transaction Costs
Tourism reduces the psychological distance between European patients and the healthcare supply in Tunisia or Morocco.
Accumulating a large number of (well) treated foreign patients builds reputation and brand image; Builds trust in a health system.

→ International dissemination of the (good) medical reputation of these countries, so long as these experiences have sufficient international visibility.

- Health, springboard for tourism development

Health and Tourism: Several common competitiveness factors
Wellbeing tourism segment:

- Target: Persons in good health (who move about easily) and not patients; healthcare consumers rather than patients.

- Coherence: Strategy that depends on a combination of good quality seaside products and a comparative advantage in the medical and paramedical sectors. Continuous supply of services.

- Strengths: Adapted to the growth prospects of European demand and its ageing. Less trade seasonality and higher expenditure per tourist.
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