

TAPR IQC Egypt
Technical Assistance to Support Economic Policy Reform

USAID Contract No. 263-Q-00-97-00104-00
Task Order 1: Delivery of TAPR Core Management Team

Report on Potentially Anti-Competitive Behavior in the Hospital Sector



Submitted to:
United States Agency for International Development / Cairo

Submitted by:
Chemonics International Inc.

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Introduction

This report examines potentially anti-competitive behavior in the Egyptian hospital sector by considering an acquisition of hospitals and other health care facilities proposed last year. The concept of the report is to describe how a competition agency might approach the competition issues raised by the merger, and what the treatment might be under US competition law, EU competition law, and the competition law of other countries.¹

The proposed hospital transaction generated substantial public and governmental interest, including questions whether the acquisition was anticompetitive, and whether the existence of an Egyptian competition law and a competition agency might have been useful in evaluating the proposed transaction. In the end the acquisition was abandoned.

A Note on Sources of Information. Most of the information in this report comes from interviews. Some comes from available documents and press reports. The time for accumulating information was short. This limited process is in contrast to the resources usually available to a competition agency. In a qualifying merger the competition agency will have specified what information the merging parties would have to file initially with the agency. The agency can then request additional information from the parties and compel the production of documents and testimony from third parties having information relevant to the merger inquiry. The competition agency will also typically have access to any relevant information held by other government agencies. In a competition investigation, the agency can compel production of documents and testimony from the party under investigation, and from third parties possessing information relevant to the inquiry. It is for these reasons that all conclusions in this report should be treated as tentative and are dependent on the quality and completeness of the information accumulated.

Hospital mergers present important issues of competition law and economics. Analysis of these mergers has developed into a well-specified analytical routine. Essentially that routine includes defining the product market or markets, defining the geographical market, and then asking whether the merging hospitals could profitably implement a significant and non-transitory price increase for their hospital services. Analysis turns on whether enough patients who would otherwise use one of the merging hospitals would switch to competing hospitals in face of any such price increase so as to make the price increase unprofitable. If such a price increase would not be profitable, the merger of the hospitals does not adversely affect the competitive environment, and competition authorities should not oppose the merger. An additional issue is whether there is the

¹ An excellent review of the competition laws of the EU and nine countries, including texts of the relevant laws, can be found in American Bar Association, Section of Antitrust Law, COMPETITION LAWS OUTSIDE THE UNITED STATES (2001).

possibility of new entry, making the market contestable and therefore eliminating any advantage to the merging hospitals from raising prices above the competitive level.²

This analytical routine means that an analysis of a proposed hospital merger is highly fact intensive, and definition of geographical market is often critical.

Hospital merger analysis is also affected by changing technology in health care, and efforts by governments and third-party payors to contain costs.³ There is some concern that Egypt already has more hospital beds and more doctors than are needed, and there is also concern that more high technology equipment has been imported into Egypt than can be efficiently utilized. The Anglo Egyptian acquisition presented the opportunity to realize efficiencies in utilization of medical technology and other resources.

The Proposed Acquisition

Anglo Egyptian Corporation Plc, a UK company, proposed in late 2000 to acquire seven health care providers located in Cairo. Although the acquisition was described as an acquisition of seven hospitals, in fact there were six hospitals and one laboratory. While the merging entities were said to have 900 beds, a careful count shows there are approximately 800 beds. Each of the providers is privately owned. These are:

Cairo International Hospital, located in Heliopolis, with 250 beds.

Al Salam Hospital, located in the Mohandiseen/downtown area, with 100 beds.

Al Shorouque Hospital, located in the Mohandiseen/downtown area, with 82 beds (to be expanded to 102 beds).

Al Nile Badrawi Hospital, located in Corniche Maadi, with 180 beds.⁴

The International Eye Hospital, located in Dokki, with 40 beds.⁵

The International Kidney and Urology Hospital, located in the Mohandiseen/downtown area with 120 beds.

The Borg Nile Medical Laboratory, the largest medical laboratory in Cairo, with locations in several areas of Cairo, elsewhere in Egypt and in Saudi Arabia.⁶

While these entities are privately owned, the ownership structure varies. The Al Nile Badrawi Hospital is owned by the Badrawi Group, which is family-based, but apparently shares of this hospital (or the Group) trade on the stock exchange. It is not unusual for the owners of a hospital to be doctors who practice at that hospital. The Al Salam Hospital started with about 40 owners and now has approximately 300 owners. Three

² See J. Langenfeld and Wenqing Li, *Critical Loss Analysis in Evaluating Mergers*, *Antitrust Bulletin* 2001 (forthcoming).

³ U.S. Department of Justice and Federal Trade Commission Statements of Antitrust Enforcement Policy in Health care, available at <http://www.ftc.gov/reports/hlth3s.htm>; K Grady, *Impact of Federal Antitrust Laws on the Health Care Industry's Increasing Consolidation*, available at <http://www.alston.com/docs/Articles/199709/2910158.HTM>.

⁴ The Al Nile Badrawi Hospital Website is http://www.misrmedical.com/Nile_Badrawi/

⁵ The International Eye Hospital Website is <http://www.inteyeshosp.com>.

⁶ The Al Borg Laboratory Website is <http://www.alborg.com.eg>.

doctors and three banks comprise six of the seven shareholders of The International Eye Hospital.

All of the entities lose money except for the medical laboratory. They survive on loans from public sector banks, and on these loans only interest is being paid. Of the 34 million L. Sterling to be paid in the acquisition, 23 million L. Sterling was to pay off hospital bank loans. The remaining 11 million L. Sterling was to be paid to owners of hospitals in proportion to their share of half the net asset value of the hospitals. The remaining half of the hospital net asset value was to be received in shares of Anglo Egyptian.

Hospital utilization rates vary between 50 percent to 70 percent.

The proposed acquisition has horizontal, vertical and conglomerate competitive aspects. The two specialized hospitals and the medical laboratory do not compete in the same product market as do the four acute care hospitals. The four acute care hospitals each offers a cluster of hospital services. The laboratory is a supplier of services to hospitals, and the two specialized hospitals treat patients on referral from acute care hospitals or from doctors associated with acute care hospitals. At the same time, the four acute care hospitals do or could supply their own specialized eye treatment services, specialized kidney/urology services or laboratory services.

There is an additional competitive aspect posed by the acquisition. The transaction agreement required doctors who were owners of hospitals or other entities being acquired, or who were associated with hospitals being acquired, to work exclusively for the merged entity, except that any existing practice activities in health care entities not part of Anglo Egyptian could continue. For example, a doctor practicing at Al Nile Badrawi Hospital might also be a professor at a university medical school and practice at the university hospital. Continuance of these activities outside the Anglo Egyptian entity would be grandfathered after the consummation of the acquisition. However, this doctor could not thereafter take on any new practice outside the new entity. Moreover, any doctor newly joining Anglo Egyptian would be required to work exclusively for the Anglo Egyptian consortium.⁷

Market Definition --The Product Market

There are three major types of acute care hospitals in Cairo. There are privately owned hospitals that generally provide high quality care at prices most residents of Cairo cannot afford. There are general government hospitals where service is free. The quality of service provided by these government hospitals is such that they are not competitive with

⁷ The Badrawi Group also owns Middle East MediCare, an HMO with 35,000 members. In its HMO network it has 32 hospitals, 40 primary care physicians and 2,500 doctor specialists. Middle East MediCare was not part of the Anglo Egyptian acquisitions, although its eventual relationship with the new entity was unclear.

private hospitals. Consumers who can afford to go to a private hospital would not consider these government hospitals to be a substitute.

The third major type of acute care hospitals are government owned but so-called privatized hospitals which treat patients on a fee-for-service basis. These hospitals are typically operated by the government or by universities. An example is the new addition to the Kasr El Aini Hospital at Cairo University. This hospital has 1200 beds. It is likely that there are occasions when a patient might choose a government or university operated fee-for-service hospital when that patient could also have chosen a private hospital. This might happen if a well-regarded doctor practiced at that government hospital and the patient of the doctor followed the doctor to that hospital. However, overall patient care in most government fee-for-service hospitals is not as good as the care in private hospitals, and there is ground for excluding most such hospitals from the product market under consideration.

One relevant product market in analysis of the proposed acquisition is acute care hospital services of the quality of service generally provided by privately owned hospitals. A second product market is specialized eye services of the quality generally provided by privately owned hospitals. A third product market is specialized kidney/urology of the quality generally provided by privately owner hospitals.

Market Definition -- The Geographic Market

The four acute care hospitals are located in three different areas of Cairo. Al Nile Badrawi Hospital is located in an area just south of Garden City, on the east side of the Nile and close to the river. The Cairo Medical Center in Heliopolis is well to the north and east of Garden City. The other two acute hospitals are located in an area on the west side of the Nile. The configuration is thus triangular.

It is unlikely that the relevant geographic market is all of Egypt. Hospitals usually draw most of their patients within a city or community area, and patients choosing a hospital will usually choose in an area where they live. This concept is particularly important because an evaluation of the merger requires an estimation of what patients would do if the hospitals in the merged entity tried to raise prices significantly.

The proponents of a merger often argue to a competition agency that in the face of price increase, enough patients would switch to hospitals located in other towns or cities so as to make any attempted price increase unprofitable. The competition agency may argue that the relevant geographic market is much smaller, and test this by determining what proportion of a particular hospital's patients come from an area close to the two merging hospitals.

One of the tests employed is the well-known Elzinga-Hogarty test⁸, which posits a particular geographic market and then asks what proportion of the patients of the merging hospitals come from within that geographic area. If most of the patients come from that area, that is if there is little in from outside (LIFO), the test shows strongly this area is the relevant geographic market for competition analysis. The test is performed by examining patient admission lists at each hospital over a suitable test period.

A factor in this analysis is the availability of transportation and the ease of traveling to a hospital farther away. This is an important consideration in Cairo, where traffic jams are notorious. So if we were to suppose that patients mostly go to hospitals near them, an analysis of the proposed merger might proceed in this fashion.

Of the seven entities to be acquired, most are located in different areas of the city. It might be supposed then, that a hospital in Heliopolis does not compete with a hospital in, for example, Maadi. If this were the case, then a merger of the two hospitals would not affect existing competition in any adverse way. In this analysis, the exceptions would be the two acute care hospitals in the Mohandiseen/downtown area, El Shaorouk and Al Salaam. They can be used to illustrate one way a competition agency might proceed. If it were thought that the merger of these two hospitals in the same geographic area would adversely affect competition, the competition agency might employ a “fix it first” strategy. That is, the agency might tell the parties that the proposed merger needs to be changed so that only one of these two hospitals would be acquired. The agency would leave it to the parties to decide which of the two hospitals would be acquired, and if the parties agreed and changed the merger agreement, the agency would approve the merger.

If fact, it appears that each of the merging hospitals draws a substantial number of its patients from all over Cairo. This is due in part to the way in which competition takes place -- a matter discussed below. It is also due to the changing nature of competition for hospital services and for doctor services. Thus the appropriate geographic market is the entire area from which the hospitals draw patients, that is Greater Cairo.

There is also some evidence that the geographic market extends beyond Greater Cairo. The new Dar El Fouad Hospital, an acute care hospital constructed in 6th of October City benefits from its access to a fast roadway. The hospital was constructed to bring to Egypt the quality of care offered by the world-famous Cleveland Clinic and has 88 beds with plans to increase it to 200 beds. The hospital is partially privately owned and Cleveland Clinic is one of the shareholders, and a state-owned bank and a state-owned insurance company own 50 percent.⁹ There may be many occasions where a patient in certain areas of Cairo would find this new hospital a suitable choice if the merged hospitals were to attempt a price increase.

⁸ Kenneth G. Elzinga & Thomas F. Hogarty, “The Problem of Geographic Market Definition in Antimerger Suits”, 18 *Antitrust Bulletin* 45 (1973)

⁹ “Digging In”, BUSINESS TODAY – EGYPT, June 2001, available at http://www.businessstoday-eg/BT_June_2001/main/sector.htm.

Competitive Analysis

The process of competition among private hospitals in Cairo is changing. Traditionally a private hospital had connections with well-known professors at medical schools and with other doctors of outstanding reputation. These doctors might practice in several different ways. Some of their time was spent teaching and practicing at free hospitals at university or at government hospitals. They also maintained their own private clinics and this is where private patients came initially. (Indeed it is reported that the present Minister of Health has his own five star private clinic under shared ownership with the head of the Cairo Medical Association.)¹⁰ Patients trusted individual doctors rather than institutions such as hospitals. Patients then followed the doctor to a private hospital where the doctor practiced. The patient paid the hospital for hospital services against a hospital invoice, but the patient paid the doctor directly for the doctor's services. Payment was made at the doctor's private clinic, in cash, and in the amount the doctor and the patient negotiated. Patients obtaining the same services from a doctor could end up paying different prices, depending on perceived ability to pay.

The changes that have occurred are three-fold. First, there is substantial walk-in traffic for private hospitals. These are patients who have come directly to the hospital, rather than following a doctor to a hospital from the doctor's private clinic. Second, an increasing number of patients are the beneficiaries of third-party payor contracts where prices for hospital services and doctor services have been negotiated by payors representing groups of potential patients. Third, government-managed or university-managed fee-for-service hospitals in some cases provide strong competition to privately owned hospitals.

In proceeding with a competitive analysis, a measure of market share must be chosen. In many mergers the measure will be market revenues. But measures of capacity can also be used, and number of hospital beds will serve, particularly where there is substantial underutilization of capacity as there is here. (This measure would not be appropriate for the laboratory service product market where annual revenues would be a more appropriate measure.)

There are 7000 private hospital beds in Greater Cairo¹¹. The merged firm will account for 750 beds. Assuming all private hospital beds are in the relevant product and geographic markets, the merged firm would have a market share of 11.5 percent. It would be useful to know what the structure of the market will be after the merger – for example whether this firm will now be the firm with the largest share in the market. However this information is not readily available. In any event it is unlikely a competition agency would take action against a merger that results in an 11.5 percent market share.

¹⁰ *"MPs Fire Across Minister of Health's Bows"*, EGYPTIAN MAIL, November 17, 2001, page 1.

¹¹ Reportedly there are approximately 30,000 hospital beds in Greater Cairo.

An alternative way to measure the competitive effect of the merger is to use the Herfindahl-Hirshman Index (HHI). This index is constructed by squaring the market share of each competing firm and adding the sum. This is done for the circumstances before and after the merger. As an example, if before the merger there were 100 firms in a relevant each with a 1 percent market share, the HHI for that market would be 100 (1 squared for each firm with a total of 100.) If the 100 firms then merged into 3 firms with a 20 percent market share and one firm with a 60 percent market share, the post-merger HHI would be 4800 (400+400+400+3600) and the increase in HHI brought about by the mergers would be 4700.

While the data is not available to construct HHIs for the entire market before and after the proposed merger, another part of the HHI evaluation is to measure the increase in the HHI as a result of the merger. This calculation would proceed as follows. The market share of each hospital would be calculated by dividing its number of hospital beds by 7000, squaring this share and adding the total. This sum would then be compared with the HHI of these hospitals after the merger – 11.5 squared or an HHI of 133. In a highly concentrated market the HHI will already be large and any increase brought about by a merger will be worrisome. The advantage of the HHI analysis is that rather than just looking at the market share created after the merger, the HHI analysis takes account for the overall market structure. Here however, the increase in HHI is approximately 100 HHI points.¹² In a highly concentrated market, a merger bringing about an increase of even 50 points would be questioned. That is not the situation here.

The analysis so far as used rough measures for overall market size and market shares. It is clear, for example, that not all beds in private hospitals are necessarily good substitutes for each other. The existence of two specialized hospitals as part of the merging parties illustrates this issue. However, to this point three hospitals have been excluded from the calculation of the overall market – hospitals that appear to be in competition with private hospitals. These are the hospital in 6th of October City, the new wing of the Kasr El Aini Hospital at Cairo University with 1200 beds, and the Ein Shams Specialized Hospital in Heliopolis with 800 beds. Adding the beds of these three hospitals helps ameliorate the roughness of defining the product market as all private hospital beds. In addition a new affiliate of the Ministry of Health, the G.O.I.H.T., has 9 teaching hospitals and 9 specialized institutes. Each of the hospitals has some fee for service “private sector” beds designed to meet the quality of accommodation levels available at privately owned hospitals. The quality of medical services is also designed to meet quality of care levels of privately owned hospitals. GOTH has 1500 of these private-sector beds.¹³

¹² Before the merger, the six hospitals together represented approximately 30 HHI points.

¹³ Ministry of Health and Population hospitals are thus in active competition with privately owned hospitals. The Minister of Health opposed the Anglo Egyptian acquisition and issued a decree on November 11, 2000 requiring the Ministry’s approval for any ownership change in private hospitals. A. Sami, “Protecting a Strategic Sector”, AL-AHRAM WEEKLY ONLINE, December 21-27, *available at* <http://www.ahram.org.eg/weekly/2000/5413/ec5.htm>; MELES Egyptian Wakayeh/Government Bulletin – Issue No. 278 (December 4, 2000). In 2000 The Government of Egypt paid for health treatment abroad of 461 Egyptian citizens at a cost of approximately 35 million L.E., presumably because the necessary treatment of the requisite quality was not available in Egypt. CAPMAS, *THE STATISTICAL YEARBOOK* p. 135 (2001).

An additional consideration in a merger analysis concerns conditions of entry. In the event that a firm after merger tries to raise prices, the result may induce a new firm to enter the market. If the merged firm perceives this is a possibility, it may be deterred from any such attempted price increase. It will prefer the outcome at present prices to a situation where a new firm enters the market with the competitive consequences such entry might entail.

The difficulty in the hospital sector is that new entry takes a long time. Estimates are that it takes five years for construction of a new hospital like the new wing of the Kasr El Aini Hospital, or even to convert an existing building into another private hospital.

However, there is another source of potential entry “waiting in the wings.” These are the various government, teaching or university hospitals whose quality (actual or perceived) does not now match privately owned hospitals. In the event the merging hospitals attempted to raise prices, there would be additional incentives for these hospitals waiting in the wings to upgrade themselves so as to be able to compete. This process would take a shorter period of time. Again, the merging hospitals would be deterred from raising prices so as to encourage this “new” entry.

In addition, apparently there are a number of highly trained Egyptian doctors who practice abroad.¹⁴ In a sense these doctors also represent potential entrants “waiting in the wings” to provide high quality medical services in Egypt.

The competitive analysis for the product markets of specialized eye services, specialized kidney and urology services, and laboratory services follows that the product market for high quality hospital services. Most hospitals in the relevant market either do provide these services, or could do so. In addition, with the grandfathering provisions in place, the exclusivity arrangements applicable to doctors in the merging entities do not pose competitive issues.

The Anglo Egyptian acquisition would not have been opposed by competition authorities under US competition law. The EU competition authorities have had little occasion to consider hospital mergers, but its Guidelines for defining relevant market match those employed under US law.¹⁵ Competition authorities in the UK have

¹⁴ A. Khalil, *Unchecked Exodus*,” April 1999 CAIRO TIMES, available at <http://cairotimes.com/content/issues/health/brain.html>.

¹⁵ COMMISISON NOTICE on the definition of the relevant market for the purposes of Community competition law, available at http://www.europa.eu.int/comm/competition/antitrust/relevma_en.html.

considered hospital mergers and their analysis is similar to that employed here.¹⁶ There is some difference between US competition law and EU competition law in the treatment of conglomerate mergers with portfolio effects.¹⁷

¹⁶ Proposed acquisition by General Healthcare Group Limited of Community Hospitals Group Plc, UK Office of Fair Trading, available at <http://www.offt.gov.uk/html/mergers/general-healthcare.htm>

¹⁷ A recent notable case involves the proposed GE-Honeywell merger, approved by the U.S. authorities but barred by the EU. The case illustrates one sense in which the EU protects consumers by protecting competitors, while the US protects consumers by protecting competition. Compare GE/Honeywell EU Merger Decision, available at http://europa.eu.int/comm/competition/mergers/cases/decisions/m2220_en.pdf with W. Kolasky, "CONGLOMERATE MERGERS AND RANGE EFFECTS: IT'S A LONG WAY FROM CHICAGO TO BRUSSELS", available at <http://www.usdoj.gov/atr/public/speeches/9536.htm>.