### ANNEX 1. COUNTRY CASES INCLUDED IN THE LITERATURE REVIEW

### Ghana

Ghana was one of the first countries to implement the autonomy policy in two major teaching hospitals (Mills et al, 2001), after initial steps towards decentralisation in the seventies. Govindaraj et al (1996) point out that fiscal pressures seemed to be the leading force in autonomisation, although other reasons like improved quality and efficiency are also acknowledged. According to Mills et al (2001), hospital boards were legally responsible entities, with powers to engage in contractual relationships, to sell and buy property and to hire staff. Govindaraj et al (1996) point out that the regulations that created autonomous hospitals transferred a great deal of decision rights, but by placing restrictions on the boards of directors, the most strategic decision rights were retained at the ministerial and cabinet levels. They also underscore the fact that an enthusiastic support to the idea of autonomy was threatened by different interpretations of the concept, and a tendency to ignore the risks inherent to the new organisational structure.

Govindaraj et al consider that implementation of autonomy did not yield the expected benefits, partly because the central government did not yield thorough control to hospitals and partly because of ambiguities in the implementation process. Nonetheless, the authors recommend to reshape the implementation process although they acknowledge the lack of conclusive evidence about the positive effects of autonomisation.

In a report of a hospital autonomy roundtable of experts in Thailand (Suriyawongpaisal, n.d.), Dovlo comments that hospital autonomy still faces strong restrictions regarding human resources management, which is highly centralised. This occurs even though there is a central policy in the opposite sense. Smithson et al, quoted by Mills et al (2001) report that one of the autonomous hospitals "does not, at present, enjoy any significant degree of autonomy."

## Kenya

In 1987, the government of Kenya granted autonomous status to Kenyatta National Hospital, a large tertiary care center in Nairobi. Collins et al (1996) report the process in detail. A board was given responsibility for assets, liabilities and management of the hospital, whereas ownership was retained at the MoH. Although most revenues were still provided by the government, the hospital was allowed to collect user fees, and was given certain flexibility for human resources management and procurement. At the beginning, implementation was not advancing as expected, so the government decided to contract out the management of the hospital to a European hospital management firm. This contract was fiercely resisted by hospital workers and finally reversed by the MOH in August 1992.

Afterwards, the newly appointed hospital director got the board of directors more involved in decision making concerning both internal management and external funding affairs. Human resources management improved in spite of its less than competitive salaries to attract highly skilled labour. Improved cash flows allowed improvements in procurement and inventory management, albeit poor performance of some workers resistant to change was persistent. Increased user fee revenues, which in 1993/94 reached about 10% of total revenues, were an important boost to cash flows. An external audit by USAID issued a satisfactory evaluation of financial management, a symptom of strengthened accountability that eased relationships with donors.

Collins et al provide a series of recommendations to replicate this experience. One key recommendation is to think of alternative ways of resource mobilisation to make sure the necessary funding will be available for the preparation of the initial steps and the development and operation of services. They propose social health insurance as a mechanism to mobilise resources, but it is not clear from the report how a poor country with a largely informal economy can implement such a model. In any case, it seems at least paradoxical that if hospital autonomy in LIC is aimed at reducing spending on tertiary care, it has to be supported with additional funding in a context of fiscal strictures.

# Uganda

Ssengooba et al (2002) analysed three public autonomous hospitals, each paired with one private-not-for-profit hospital. The three pairs were selected purposively to test the

assumption that the better performance of the private ones is explained by their larger autonomy as compared to their public pairs. Data were collected at two separate periods to detect variations in findings.

The study found relevant differences in corporate governance and skilled managers, favouring the private hospitals. Public hospital managers still faced many restrictions as compared to their private pairs; human resources management was one of the key restrictions. Regarding the collection of fee revenue, it was clear from the outset that private hospitals showed higher levels of collection, but far from imitating them, public hospitals were aware of their role as safety net hospitals, i.e. they received the patients that were unable to pay at the private facilities. It meant that the potential to increase fee revenue was very limited. The authors conclude that despite differences favouring private hospitals, granting greater autonomy to public hospitals could not yield the same performance levels because these hospitals have to improve their managerial capabilities and the government has to create the mechanisms to protect access by the poor.

Despite the efforts to reallocate scarce resources towards cost-effective primary care interventions, tertiary care hospitals increased their share of public funds. It is clear though, that tertiary care hospitals also deliver some primary care services, but in the end, the expected efficiency and quality improvements had not taken place, because of reduced overall funding, irregularity of payment of hospital grants, and the increased demands on the hospital sector (Hanson et al, 2002). On these same lines, Akello (2004) found, in two national referral hospitals enjoying autonomy for about ten years, that improvements in efficiency could not be related to the granting of autonomy.

### Zambia

The hospital reforms that started in the early nineties created the Central Board of Health, a public body responsible for contracting with public and private (NGO) hospitals for the delivery of services. The government has defined a basic benefit package, on whose services the hospitals can charge cost-sharing fees to patients (based on ability to pay), whereas services not included in the package are priced at full cost-recovery rates. Although a governance structure was created by which hospital managers were accountable to Autonomous Hospital Boards, both of these were

appointed directly by the Minister of Health (Hanson et al, 2002). Thus, accountability of both governance and management seems to be rather limited.

Kamwanga et al (2003) analysed five autonomous hospitals in Zambia, and using the same approach used for Uganda, they compared three public hospitals with two private They found that hospital performance did not show relevant mission hospitals. improvements, and there was little reduction of hospital dependence on central budgets, as their capacity to mobilise resources from users was rather limited. Even worse, autonomy to arrange the mix of services to be provided created incentives to attract paying patients at the expense of restricted access to the worse-off. It also seems that services for those able to pay were subsidised with the block transfers the hospital received from the central government, which were intended to guarantee access to the poor. Budgeting based on bed count worked as an incentive to expand capacity, and a poor referral system created incentives for excess referral to secondary and tertiary care services. Regarding contracts between the Central Board of Health and the autonomous hospitals, it seems that they were weakly enforced and government grants to the districts were transferred with delays. One key obstacle to the implementation of autonomy has been the lack of continuity of the policy along successive governments (McPake and Hanson, 2004).

#### Zimbabwe

The network of public hospitals in Zimbabwe was highly centralised at the MOH and some of its support functions were managed by other ministries. According to Needleman et al (1996), the government announced its desire to decentralise hospital financing, but it started with granting some autonomy only to Parirenyatwa hospital, one of the six national referral centers. The scope of autonomy was rather limited, given the highly centralised tradition of the rest of the hospital network. Senior managers were appointed directly by the MOH, without approval from the board of directors and staff were civil service. Budgeting was based on block grants, unlike line-item budgets for the other hospitals, but they were based on historic patterns. In practice they were restricted by the fact that employees were civil servants and they were a fixed cost to the hospital. Restrictions in procurement were no different from the other hospitals.

As usual in the SubSaharian experiences, fee retention was one of the key areas of autonomy and the hospital was allowed to bill the government for services rendered to the poor. But the fee schedule was set by the government below cost, causing a structural deficit that had to be bailed out by the government itself. Although it was considered that fee collections improved at Parirenyatwa hospital and they were higher than any other public hospital's collections, they still remained below 20% of hospital expenses. In addition, long delays in billing the government and other payers did not allow the hospital to collect the expected amounts.

Using Harare hospital as a comparator, Needleman et al conclude that there were no big differences with Parirenyatwa. Historical differences and case-mix could explain the observed differences, and indicators of financial management, cost control, personnel, drugs and supplies, and other recurrent expenses, were not conclusively better for Parirenyatwa.

#### China

The transition of state-owned enterprises (SOEs) in China from public entities to privatised firms has been widely studied (World Bank, 1995). Regarding public hospitals, although they have not been privatised as SOEs, they have been granted some degree of autonomy, but they have not attracted such level of attention as SOEs. However, it is widely reported that the marketising reforms of the eighties changed hospital funding from a previously government-centralised system to a level of autonomy that allowed hospitals to collect revenues from user fees and sales of medicines. Central-budget transfers were frozen since the early eighties (Liu and Mills, 2005). Thus, while in 1980 out-of-pocket expenditures' share of total health expenditures was 20.2%, it rose to 58.3% in 2005 (Cong and Hu, 2005). In an attempt to protect the poor from financial barriers, the government regulated the prices of the essential health care services, usually below marginal cost, but allowed hospitals to compensate for these low-price services by giving them freedom to set prices for nonessential services. Not surprisingly, this distorted set of incentives encouraged urban hospitals to increase their supply of nonessential services at the expense of the essential ones, leading to cost escalation and access barriers to the poor (Eggleston and Yip, 2004).

The scarcity of reports explicitly addressing hospital autonomisation in China has to be circumvented by looking at indirect studies, like that of Eggleston and Yip (2004). They report in a small sample of 38 government hospitals in different municipalities that revenue from government sources decreased from 17% in 1985 to 7% in 1999, whereas user-fee revenues increased from 26% to 37%, and revenues from sales of drugs rose from 39% to 50%. Regarding salaries as a percentage of total compensation, they decreased from 60% to 33% in the same period, as other components of compensation (like bonuses) increased. It is also highlighted that 82% of the sample of hospitals were making surpluses, with a maximum value of 30% of net revenues.

Liu and Mills (2005) analysed the effects of a bonus-based system of payments to hospital physicians. The authors assess the effect of the bonus system on physician's ability to induce demand and find that unnecessary care was increased. This finding is hardly surprising, given the evidence on the effects of incentives on physician use of resources (Robinson, 2001b), but an interesting contribution of this paper is that hospital autonomy does not necessarily lead to the maximisation of social welfare, because managers, as the dominant group within the hospital, have a strong incentive to use it for their profit-maximising objective by creating incentives for doctors to induce demand. In fact, Eggleston et al (2006) call attention to a much faster growth of aggregate health care costs as compared to per-capita income and prices, partly explained by excess hospital cost increases.

It is clear though, that being a large country, Chinese hospital environments differ among markets. A study by Meng et al (2004), found that market accountability towards third party payers has a strong effect on prices of hospital services. They compared two cities where third party payer developments widely differ. In Nantong, where a single payer system was adopted with strong competition among hospitals for contracts with the payer, the rate of increase in services for two tracer conditions (appendicitis and normal delivery) was much lower than in Zibo, where a dispersed and weak pattern of purchasing prevailed. Beyond the simple effect of the payment mechanism, the role of the purchaser can make a difference when it actively monitors the process of care. In fact, the study shows that although hospitals in Nandong were paid on a per-diem basis, which generates an incentive to increase length of stay, insurers' active involvement in monitoring hospital services allowed them to keep length of stay within reasonable limits.

Another case study, by Yip and Eggleston (2004), analysed changes in hospital reimbursement in the province of Hainan. In this case, payment mechanisms were changed for six hospitals from retrospective fee-for-service towards prepayment. Prospective payment was a monthly budget estimated on previous year's payments, but the province paid only 90% of the estimation, whereas the remainder was paid contingent upon satisfactory quality indicators. The authors run pre- and post-reform analysis, both for the six hospitals undergoing payment reform and for a set of control hospitals that were kept under the retrospective scheme. They find that prospective payment leads to a lower rate of growth of hospital expenditures by the province.

As said above, these experiences of the Chinese hospitals do not directly address the subject of hospital autonomy, but they indirectly tell some things about autonomy. On the one hand, as a result of the government freezing supply-side budgets to hospitals and freeing them to compete through a distorted regulated price scheme, hospitals enjoyed enough autonomy to quickly react and take advantage of the perverse incentives inherent in this market environment. That is why payment reform in the mid nineties was badly needed in order to slow down the unfettered growth of expenditures that backfired as higher growth in health care spending. However, lack of detailed reports on other aspects of autonomy do not allow conclusions about the role of determinants of hospital behaviour on the observed results.

An exception to this lack of focus on autonomy is the case of Hong Kong hospitals. This is an interesting case that allows contrasts with autonomy at the individual hospital level. Yip and Hsiao (2003) report that the Hong Kong government decided in 1991 to delegate authority to a new entity, the Hospital Authority (HA), which was to manage the existing 13 public hospitals. Before then, individual hospitals faced the typical bureaucratic constraints of dealing with a governmental structure, but once unified with the HA, their constraints were much higher although of a different type. The HA had a hard budget constraint but enjoyed high flexibility to set its strategic plan and make decisions about products, outputs and labour. Regarding financial management, there was no change as the government kept transferring the HA the necessary resources. Thus, the HA had no decision rights over financial matters, but at the same time there was no market exposure as the transfers made up about 97% of revenues.

This approach yielded encouraging outcomes. Budget discipline was readily achieved, overcrowding was reduced and patient- as well as staff-satisfaction improved. One key aspect that is highlighted in Yip and Hsiao is that this monolithic structure provided the stage for better network coordination. The interesting contrast with this case stems from the fact that outcomes were improved by an organisational reform that entails horizontal integration rather than autonomy. In fact, it is surprising that this experience is shown as hospital autonomy in Preker and Harding's compendium, because it seems to support the idea that avoiding direct government control is the key point about hospital reform, but individual hospital autonomy is not the key. On the same lines, it could be argued that market exposure is not an issue if a closed public network is held accountable by other mechanisms.

### Indonesia

The case of Indonesia has been reported, among others, by Bossert et al (1997) and Lieberman and Alkatiri (2003). A policy to encourage hospitals to collect user fees and cost-recovery fees was launched in 1991. In order to create the incentives for fee collection, hospitals that implemented the policy were given autonomy to decide how to use the collected money. By 1997, 61 of the 327 public hospitals were granted autonomy after fulfilling specific requirements like: increasing fee revenues during the previous three years, share of fee revenue higher than 40%, bed occupancy rate higher than 70% (60% for district and province facilities), and length of stay lower than 10 days.

Although in some respects autonomy was only partially given, one key aspect of decision rights was that the hospital was free to set the fees for its services. This allowed some hospitals to raise their fees close to those of private sector providers. Autonomous hospitals were allowed to use fee-based revenues to improve services by purchasing inputs, setting salary incentives and hiring staff, but not for civil works and equipment. But decision rights over human resources were still very rigid. Autonomous hospitals were also required to reserve at least 50% of their beds for poor patients and the rates for these beds were regulated by the government.

Despite a report of positive effects in 1995 (Gani, cited by Lieberman and Alkatiri, 2003), further results were less enthusiastic. Albeit direct charges to users is an

important source of financing in the Indonesian health care system (between 30 to 80% of total revenue), no relevant differences were found in fee collections between autonomous and non-autonomous hospitals (Bossert et al, 1997). But paradoxically the government not only did not reduce spending on hospitals to offset fee revenues, but it was increased (Lieberman and Alkatiri, 2003). Productivity indicators, as well as absenteeism, seemed to have improved in autonomous hospitals, but Bossert et al found no change in efficiency indicators both in autonomous and non-autonomous hospitals. It seemed that accountability devices were not strong enough, which was not seen as a big problem, given the limited decision rights that were transferred to the hospitals.

Equity seems to have been compromised, as the increases in fees were unaffordable for the poor. Bossert et al found no difference between autonomous and non-autonomous hospitals in this regard. More worrisome, they suggest that public funds ended up subsidising the beds for the non-poor. Lieberman and Alkatiri suggest that the 50% of beds that were reserved for the poor, and whose rates were controlled by the government, might show a lower degree of intensity in use of resources. In a recent report from WHO (2006a), it is recognised that out-of-pocket spending is still a large source of financing for the health sector in Indonesia, and that it has increased, as well as unofficial charges. Thus, it seems that resource mobilisation worked fairly well, but that hospital autonomy was not the driving force.

In a report for the World Bank prepared by Knowles and Marzolf (n.d.), conclusions about autonomy policy are not encouraging: fee revenues increased but not enough to allow for reduced MOH funding; hospital utilisation rates did not change as compared to nonautonomous hospitals; staff performance and morale improved, thanks to financial incentives provided by autonomous hospitals; financial management practices improved; and no conclusion could be reached about the effect on quality. The authors also report that the most important driver of autonomy, i.e., fee collection, was abolished in 1997 and all collections were to be transferred to the central government, although a minor share of it would eventually be returned.

# Singapore

Public hospitals in Singapore were not given individual autonomy but they were organised in a network, similar to the Hospital Authority of Hong Kong. The Health

Corporation of Singapore (HCS) was established in 1987, as a public enterprise but with an independent board of directors to which the manager is accountable. However, unlike in Hong Kong, in Singapore the HCS hospitals were less restricted and each was the residual claimant on its respective budget (Phua, 2003). Although they are allowed to keep surpluses, they still have the protection of the government, which covers any deficits. It is expected that these subsidies will disappear in the future (Wagstaff, 2005).

A striking feature of the Singapore case was the price competition that was triggered as a result of the policy to finance health care via individual savings accounts, introduced in the mid eighties. A context of patient-driven competition in a market environment dominated by fee-for-service payments, allowed hospitals to increase prices and physicians to induce demand. In addition, an inflation process was triggered in the factor markets, particularly for physicians. As private sector hospitals were able to pay higher fees, public hospitals also had to increase their fees in order to avoid drainage of skilled labour. This added to the costs of operating hospitals, because they also had to acquire state-of-the art technology to attract physicians with higher potential for referrals (Hsiao, 1995).

# Malaysia

The experience of Malaysia with autonomisation is restricted to one single hospital, the National Heart Institute (NHI), which was founded in 1992 and almost simultaneously converted into a corporation. This conversion was facilitated by the fact that the country was in the middle of a wave of privatisation of SOEs (Hussein et al, 2003). The NHI has its own board of directors, who were largely autonomous and had the necessary power to have the hospital manager accountable. A key difference with the cases reviewed here is that the NHI did not have a backlog of structural weaknesses to fight. Perhaps human resources management was a minor similarity, because most of its staff were transferred from a public hospital, including their perks and long-term costs.

Although the NHI was surrounded by a competitive environment, market pressures were attenuated in those service markets where the hospital was a monopoly, and because it was allowed to bill the government for services provided to the poor; these services were paid on a fee-for-service basis, which created strong pressures to increase government outlays to the hospital. Some critics viewed this as a disguised soft budget

constraint. But on the other hand, market exposure and the cost advantages enjoyed by the NHI prompted it to lower prices to compete with rivals, who consequently also reduced their prices. Price competition lead the NHI to reduce its price-cost ratios which threatened its sustainability, but at the same time cut excess profits that apparently were being reaped in the rest of the market.

#### India

A set of separate hospital reforms have taken place in India. Among them, the reforms in the state of Andra Pradesh have been studied by several researchers. In 1986 the state created the APVVP (Andra Pradesh Council for Hospital Management), a quasi-governmental organisation, to manage all its district hospitals. By 1993 it managed 162 hospitals. Similar to other horizontal integration cases like those of Hong Kong and Singapore, the state government did not grant autonomy to each hospital separately, but kept them under the umbrella of APVVP. It apparently allowed the hospital network to be more flexible than under direct control by the government, because the APVVP was given more flexibility for its operations. However, it has experienced periods of weak leadership, due to the high stakes that moved the government to take back control of it. This has affected the whole hierarchy. In addition, budgetary execution is still limited by line item budget restrictions, and human resources are still centrally managed (Chawla and George, 1996).

This experience has also shown positive effects, like shortening idle times of broken down equipment, improvement of physical infrastructure, improvement of financial and inventory management and an increase in revenue collection from user fees, donations, lotteries and external assistance. However, the overall perception is that tertiary-care hospitals have not been able to significantly increase resource mobilisation (Govindaraj and Chawla, 1996). The same was said in Mills et al (2001) regarding the experiences of the state of Tamil Nadu.

#### **Pakistan**

The Health Department of Punjab described in 1998 a dismal situation for public hospitals, and as a means to change it, the Department proposed to grant managerial and

financial autonomy to these hospitals, delimited by performance agreements and clearly stated lines of accountability (Balal, 2006). A pilot test phase I starting in June 1998 was run with four hospitals, followed by a second and third phase with eight more hospitals within the following year.

The Health Department report (cited by Balal) shows improvements in maintenance of buildings, purchasing of equipment, procurement, and human resources management. Although restricted to some activities, the figures cited by Balal show a dramatic increase in laboratory and radiology tests in the phase I hospitals. These encouraging results prompted the recommendation to expand the experience to other hospitals, on the argument that improvements were explained by autonomisation.

However, Balal shows contempt for these results, and points out that by 1998 autonomy was deficient, and the boards of directors were not made to function. Skepticism about this policy was complete when the military regime of 1999 reversed its implementation. But it was reintroduced in 2002, with boards of directors more involved in decision making regarding human resources management, procurement, financial management and strategic management. A recent report by the Government of North West Frontier Province (2006) concludes that autonomy in the four major hospitals is very limited. They report that public officials dubbed it "remote control autonomy" as no meaningful decision rights are actually transferred to hospitals.

### Lebanon

The experience of Lebanon in corporatising public hospitals has been analysed by Eid (2001), whose report illustrates how governance arrangements determine hospital performance. In 1996, a law was passed that transformed the public hospitals into corporatised entities to be managed by Public Hospital Enterprises with their own boards of directors. Hospitals were then required to sign contracts with third party payers including the MOH, whereas the MOH retained its functions regarding regulation, coordination of health provision, and rationalisation of the sector.

Eid reveals relevant weaknesses of the key regulations concerning hospital governance. For example, appointment of board members was stated in terms of individual skills rather than in terms of representativeness of key stakeholders. In addition, due to unclear or inadequate criteria for selection of directors, these appointments were captured by political interests. The appointment of the hospital manager was also open to capture, as the process of selection and appointment was not clear as well. It also created space for the manager to take advantage of information surpluses vis à vis the board of directors. These ambiguities caused outcomes to vary more according to the personalities in place, rather than clear regulations and institutions.

Besides this rather weak process of constitution of governance, the board, which apparently was given wide responsibilities, actually had to get the clearance of the MOH for most decisions. The MOH also was directly involved in hospitals' decisions because it took part in the board of directors. Lastly, another factor leading to low powered incentives was the lack of risk exposure by board members for poor judgment. This lack of risk transfer is raised by the author as one of the causes of difficulties in achieving an adequate balance between quality and costs, because the principals at the board of directors did not act in a coordinated manner.

#### Tunisia

The 22 teaching hospitals in Tunisia benefited from large-scale investments from the government during 1992-1995. The investments were aimed at improving facilities, information systems and managerial capabilities. The hospitals were converted into government-owned health corporations with their boards of directors, and were given formal decision rights. However, Achouri and Jarawan (2003) report that this granting of formal decision rights turned out to be a centralisation process. Inefficiency and lack of credibility were the reasons given by MOH officials to keep control over health corporations. Increases in user fee revenues were pushed through decreasing budget allocations from the central government, but no further relevant improvements could be attributed to the autonomy granted to health corporations.

# Brazil

The State of Sao Paulo took an innovative approach to grant autonomy to its public hospitals. A public-private partnership approach was applied to develop the purchaser-provider split, by which the government created Social Organisations in Health (OSS by its Portuguese acronym) with public and private participation. These OSS, created by

law in 1998, were autonomous entities, with which the government contracted for the delivery of health care, in exchange for a block transfer of money. By 2004, sixteen public hospitals within the State were managed under this arrangement.

Rinne (2005) analyses a sample of 20 hospitals in Sao Paulo, 7 corresponding to OSS, 7 public non-OSS, 4 private and 2 public but supported by foundations. His study analyses hospital autonomisation through the prism of human resources, but addresses key points that are relevant for an overall discussion of hospital autonomy. The contract between the Secretariat of Health (SOH) and the OSS stipulates a monthly volume of services to be delivered, in exchange for a prospective block contract. Whereas 90% of this amount is transferred upon satisfactorily fulfilling performance goals, the remainder is contingent upon the submission of properly coded data. This condition seems to be actively enforced by the purchaser. Contract incompleteness is dealt with through communications between the parties, and there is a tendency to a relational type of contract. Reputation effects also seem to play an important role for NGOs managing OSS to abide by the contracts.

Unlike other experiences in hospital autonomisation, the OSS model is not aimed at resource mobilisation, as these hospitals are part of the national health system and are not allowed to charge fees. They collect small additional funds from parallel sources like parking lots or cafes.

Renni's report highlights the wider flexibility in human resources management that OSS enjoy as compared to their public non-OSS counterparts. Qualitative assessments show that there is a general perception that OSS hospitals perform better than their public non-OSS counterparts, which the author considers is confirmed with efficiency data.

#### Peru

During the early nineties, an economic crisis forced the government to cut spending in many areas, including public health services, which were said to be in an operational collapse. One way to reduce health care spending was to increase user charges, which required hospitals to enjoy autonomy to have the incentive to collect these charges. Although the process of granting autonomy was rather ad-hoc, prompted by the collapse as described by Arroyo (1999), its effects were largely predictable. His study on five

hospitals in Lima showed that the highest income stratum increased its share of services used from 35.4% in 1988, to 52.6% in 1997. Conversely, the lower-income stratum decreased its share, from 24.4% to 20.5% in the same period. The stratum in the middle also reduced its share, from 39.2% to 26.8%.

Two major points are raised by Arroyo. On the one hand, although hospitals were allowed to charge user fees, they applied exemption mechanisms for the poorest. The targeting mechanism they used was a social worker who performed a means test. However precise this mechanism, it is clear that it is subject to gaming by the social worker, or by the poor themselves, given information asymmetries. On the other hand, the lack of mechanisms to assure network coordination resulted in redundant and inefficient supply of services, which were arranged to bring in revenue from paying patients.

## Argentina

Hospital autonomy in Argentina was promoted rather as a way to prompt public hospitals to bill third-party payers and, to a lesser extent, collect user fees. Given that insurers in the social health insurance scheme (Obras Sociales) were not billed when their enrollees used services at public facilities, a large cross subsidy was taking place from the MOH to the Obras Sociales (Tobar, n.d.). Thus, the government issued a decree in 1993 that enabled public hospitals to bill Obras Sociales. Hospitals had to fulfill some requirements regarding structure and processes, as well as output and productivity indicators. Medium and high complexity autonomous hospitals had to create an Administrative Council and a Technical Advisor Council. However, these structures did not work as a board of directors.

Lloyd-Sherlock (2005) reports that by 1999 there were 1153 public establishments turned into autonomous entities. He also points out that decision rights over human resources were not transferred to hospitals, which severely limited autonomy. Therefore, resistance to autonomisation at the provincial level was minor because health care jobs were not threatened by their transfer to the local or provincial government. Abrantes (2003) reports that the effects of hospital autonomisation, as expected, were limited to increasing revenues from billing Obras Sociales. On average, autonomous hospitals make 10% of their revenues from billings, but this varies widely between 3%

and 30%. The hospital with the largest share of revenue coming from billings was found to be the JP Garraham, which was created as an autonomous entity in 1969. Although this hospital received transfers from the central government, its autonomous status provided incentives to bill Obras Sociales from the beginning.

# Portugal

Portugal's health system is a Beveridge-type one. The National Health Service was the owner of public hospitals, but it decided to start a process by which 31 hospitals were granted autonomy. They were converted into "Anonymous Societies" (SA) by where they kept their public ownership but were subjected to private legislation in some regards. SA Hospitals created their boards of directors and faced a hard budget constraint. There have been two large studies inquiring into the effect of transformation into SA: Gouveia et al (2006) and Costa and Lopes (2005). Both studies will be briefly commented on here, as they are perhaps the most carefully conducted studies on hospital autonomy, focusing not only on outputs and productive efficiency, but also on clinical outcomes.

Gouveia et al analyse the effects of conversion into SA regarding quality, output, costs, access and efficiency. They make overall comparisons between the 31 SA hospitals and the remaining 42 hospitals, and a second level of comparisons by selecting the 17 non-SA hospitals that best match the SA hospitals in terms of size. Thus a case-control methodology was applied. They analysed five years of data for each hospital, for the periods 2000 to 2004. A difference-in-difference methodology was used to compare hospital performance on the aforementioned topics.

Regarding quality, they found no difference between the two groups (SA and non-SA), not only in terms of patient satisfaction but also in terms of technical quality indicators, for which they used DRGs for case-mix adjustment. Outputs increased in both groups, but SA hospitals showed larger increases in discharges, and a much larger increase in same-day surgery. SA Hospital's Average Length of Stay decreased by 0.38 days even though case mix increased slightly. Personnel costs were reduced 8% at SA, whereas drug spending was reduced in terms of quantities but not in terms of prices. Regarding access, there was no evidence of cream-skimming, despite public claims that SA were engaging in this selective behaviour.

An interesting point in Gouveia et al's report is how the relationship between contractor (the National Health Service) and SA Hospitals developed. Although SA were expected to enjoy autonomy, their budget still depended on government transfers. These transfers are a block grant to cover fixed costs, and they make up 60% of the total operating budget. The remainder is paid on a per-patient basis, on a fixed rate that opens room for cream skimming. In order to avoid selective behaviour, although no DRG-based payment was implemented, they created a Case-Mix index for each hospital. Although contracts were expected to create the framework for the transactions, and they certainly achieved the goal of shifting from input-based to output-based budgeting, for years 2003 and 2004 contracts were signed only by midyear, which invalidated contracts as a planning tool. In addition, some SA (perhaps except larger hospitals) complained that contracts were imposed by the government, rather than negotiated.

The authors conclude their study with a list of strengths and weaknesses of the SA approach. Major strengths were: improved internal management processes, a more flexible labour regime, and more agile procurement processes. Increased cash flows enable SAs to take advantage of discounts in procurement of hospital inputs. In general, SAs enjoyed greater flexibility for investments and planning. Regarding weaknesses, the authors point out the coexistence of two legal frameworks: although they were supposed to migrate towards the private law framework, the coexistence of both private and public legal frameworks created additional problems. This also related to human resources management. Given that a large share of human resources at SAs remained civil servants, their resistance to change has proven a difficult challenge. Another point the authors highlight is the difficulty to arrange a group-purchasing strategy among SAs. At the government level, they also found weak control and coordination functions specially regarding SA. The authors also comment on threats of the SA approach: on the one hand, it is very dependent on individual leadership and organisational skills. On the other hand, loss of a shared network vision would be conducive to cannibalisation (i.e., the adoption of behaviours that hurt other hospitals), particularly regarding human resources, and redundant capacity.

The study by Costa and Lopes (2005) is less detailed than Gouveia et al, but it is interesting inasmuch as their findings are similar. They also found larger increases in hospital discharges and same-day surgery at SAs. However, they found that SAs

showed a case mix increase for hospital discharges but a decrease in surgical cases. Cream skimming behaviour was also ruled out.

A key limitation of these two studies is that selection bias cannot be ruled out. The fact that the hospitals to be transformed into SA were not randomly selected makes it difficult to isolate the effect of the SA approach. It could be argued that the observed differences are the result of better hospitals being shifted to SA, or those more likely to take advantage of the new decision rights entitled by autonomy. In addition, the slightly better results of SAs could have been the consequence of their proneness to risk-taking, which reinforces Gouveia et al's point on how much the success of SAs depend on the individual profile of the manager.

# Eastern Europe and Former Socialist economies

The radical changes that took place in these countries during the nineties obviously meant large shocks to their health systems, as they were completely public. Pervading problems of these systems were hospital overcapacity and slack, as a consequence of the incentives inherent to the input-based, curative-centered Semashko approach to health systems. The health systems of these countries have been extensively studied and several compendiums have been published. Jakab et al (2002b) and a special issue of Eurohealth are reveiwed here.

Fundamental changes were introduced in the nineties in these systems: the introduction of health insurance schemes, a purchaser-provider split, decentralisation, and hospital autonomisation. All these countries have advanced to a lesser or greater extent in these areas. Regarding hospital autonomisation, this strategy was resorted to by most of the countries to reduce overcapacity. Despite general awareness of overcapacity, hospitals were unable to react to the corresponding incentives because health workers kept their rigid civil service regulation (open-ended contracts and high severance payments), and the local governments, to whom hospital ownership was transferred in most cases, were not interested in downsizing because of its political costs. Budgeting also reflected the rigidities of the past, as these made the evolution from input-based towards an output-based budgeting difficult.

Although the purchaser-provider split is expected to expose hospital to some market exposure, market accountability has been largely restricted because third party payers are not allowed to practise selective contracting. Therefore, hospitals are granted contracts, irrespective of performance, and contracts wield little power as accountability devices. A simple statement in Jakab et al (2002b, p 199) becomes highly significant in a context where incentives and regulations appear to have little effect: "As a result, an improvement in behaviour depended on the drive and entrepreneurial spirit of hospital managers." This is also very relevant to other countries as will be shown later.

Some particular aspects of these country-cases are worth highlighting. For example, in Poland, although overcapacity was not a big problem, autonomy was limited in real life, as "hospital managers have not changed the way they do their job." (Kozierkiewicz and Karski, 2001). In Albania, transfer of hospital ownership to local governments was resisted by organised physicians, so they are currently kept under the control of the central government (Nuri, 2001). In Bulgaria, autonomy has been taken a long step forward, with the introduction of outright for-profit orientation. This included the introduction of private capital, but the majority holding would be still in the hands of the state (Delcheva and Balavanova, 2001). In Georgia, staff were shifted from the civil service to the hospital, but during the early stages of reform, poorly-defined governance structures left room for some hospital managers to incur defaults with their workers (Rose and Gotsadze, 2001).

## United Kingdom

One of the most conspicuous experiences in hospital autonomy was started in the UK when the wave of NPM-type reforms was spreading over the developed world. By the early eighties it was more and more obvious that the NHS needed reforms, although not regarding finance, at least regarding its design of service delivery. By 1988, the White Paper "Working for Patients" proposed important changes to the current structure, which would start in 1991. The most striking was a purchaser-provider split whereby hospitals were converted into autonomous trusts, and health authorities were transformed into purchasers on behalf of their population. General practitioners would also be allowed to be fundholders who bought hospital services for their patients. Other types of fundholding arrangements emerged (total purchasing projects, multi-funds, commissioning groups) with varying degrees of risk exposure or coordination. All

these relationships between providers and purchasers were to be mediated by contracts (Ham, 2003). Thus, an internal market was created by which providers were expected to compete for purchaser contracts, but no individual choice of provider was allowed (Mays, 2000). Hospital trusts were highly autonomous, up to the point of deciding on capital investments or selling off fixed assets and land, retaining surpluses and borrowing within limits. Staff were transferred to trusts although they retained their benefits until further negotiated (Ham, 2003). This level of autonomy was hardly seen in any other country experience analysed here.

It is interesting to note that academicians had predicted some outcomes of the quasimarkets based on theoretical rationales. Bartlett and Le Grand (1993) predicted that market structure was crucial for the success of quasi-markets; therefore, if the result of the PPS was a bilateral monopoly, it was very likely that the relationship would become "too intimate" and obviously no competition would ensue. The authors point out other sources of malfunctioning in the quasi-market approach: prices, being administered, do not convey information on costs and preferences, so do not determine behaviour on the supply and demand side. Large information asymmetries and the costs of collecting information on quality, open room for provider opportunistic behaviour, mostly skimping on care. And last, the authors expect that transaction costs, both *ex-ante* and *ex-post*, will be lower than the previously vertically integrated structure; otherwise it would not make sense to implement quasi-markets.

In hindsight, it seems that the expectations of academicians were largely realised. In a review of the evidence, Mays (2000) reports that the prediction about bilateral monopolies was correct (irrespective of the fact that most provider markets were not monopolistic), and it reduced competition to meaningless levels. Even on the purchasing side, health authorities were unwilling to exert too much pressure on hospital trusts for fear of causing large damage to the single existing provider in a given area. Then he concludes that "little major, measurable change (...) can be related unequivocally to the core structures and mechanisms of the internal market. Neither the prophets of doom nor the enthusiasts have been proved correct." Le Grand (1999) summarised the reforms as not bringing about the expected benefits, because incentives were too weak, whereas restrictions were too strong.

A more recent organisational form, the Foundation Trust, was introduced in the NHS (NHS, 2004). It is a more autonomous type of trust than the traditional hospital trust. It is a legally independent organisation called a Public Benefit Corporation. The most striking differences with their predecessors are the more explicit participation of staff and the community in governance, through the creation of a staff- and a community-constituency. These constituencies elect representatives to a board of governors, who hold the Foundation Trust accountable to them. Governors are not involved in day to day management, as is the board of directors. Foundation Trusts are exposed to more competition, because the community is allowed to choose the provider of their preference. The trusts can also borrow from the government and private lenders, and they face a hard budget constraint as they are responsible for all its liabilities and debts, just as a legal entity.

Marini and Street (2006) analyse a more recent evolution of the UK experience, by looking at the transaction costs of the new payment system which is based on the number of Health Resource Groups (similar to DRGs) that Hospital Trusts bill to Primary Care Trusts. This study finds that the transaction costs of the new payment mechanism are higher than those of the previous block contract mechanism. However, the authors restrict their analysis to the administrative costs of contracts and do not consider other transaction costs stemming from opportunism and bounded rationality.

### New Zealand

The case of New Zealand is interesting as it shows a health care system that adopted NPM strategies in several areas of its economy, including its government owned monopolistic vertically integrated health care system. Ashton et al (2004) report that the PPS took place in New Zealand in 1993, by the creation of four Regional Health Authorities (RHAs). These RHAs were to purchase personal care and social care services with the resources available from a capped budget. The provider network was transformed into 23 autonomous enterprises, called Crown Health Enterprises (CHEs). These CHEs were supposed to compete for contracts with RHAs, but some changes made in 1996/1997 reduced the emphasis on competition towards a more collaborative relationship, and the four RHAs were merged into one single Health Funding Authority.

Regarding competition for contracts, RHAs rarely exerted selective contracting, only when: 1) there were many providers and excess capacity, 2) additional units of service were bought on a spot contract basis, 3) there were new resources to buy new services, or 4) there were poor quality providers. Beyond these particular cases, the vast majority of contracts were signed with incumbent providers and no competition ensued. An interesting finding from Ashton et al's work was that the first rounds of contracts were very costly, with minutes running up to 300 pages. These minutes were written by private lawyers, who aimed at considering every possible contingency. However, further rounds of contracts reduced these costs, and the merger of RHAs into a single Funding Health Authority meant the evolution towards a more relational type of contract. The authors conclude that, although no assessment of productivity changes was made for the period 1993 to 2000, "...there is no evidence to suggest that the purchaser-provider split brought about any major efficiency gains in the hospital sector." While a new reform in 2000 aimed at strengthening community participation and primary care, the PPS was kept in place but contracting relationships were collaborative and not competitive (Ashton, 2005).

## The case of district hospitals in the United States

Most hospitals in the United States are private nonprofit organisations, and the rest are private for-profit or publicly owned. The latter amount to about one sixth of total hospitals. One interesting case among public hospitals is that of district hospitals, which are clearly a type of corporatised hospital (Eldenburg and Krishnan, 2003). They face a hard budget constraint inasmuch as they collect revenues from local taxes and user fees; in case of revenue shortfalls, they can lobby for higher taxes. This tax-dependency holds them accountable to taxpayers. The corporatised structure of these hospitals is under the control of boards of directors that are elected by voters instead of being appointed. Eligible candidates have to campaign for votes, and they usually try to cater to constituents' interests.

This creates a dynamic by which voters want lower taxes and lower user fees, and consequently, hospital budgets tend to be very restricted. Such restrictions are reflected in a lower compensation package for hospital CEOs, as compared to that of their private nonprofit counterparts. It obviously creates selection problems, because the most talented executives will not be attracted to the district hospital. One key aspect of

accountability is that board meetings are held in public, so no hidden actions by board members are possible.

Eldenburg and Krishnan analyse 18 years of data of district hospitals in California. The sample started with 71 hospitals in 1981 and ended with 55 in 1998 due to mergers, acquisitions and closures. They matched these observations with nonprofit hospitals to compare performance indicators. They found that CEO compensation was lower in district hospitals than in private ones, and in general a lower performance of district hospitals as compared to their private nonprofit counterparts.