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The changing hospital landscape

An exploration of international experiences

Ellen Nolte, Emma Pitchforth, Céline Miani, Sheena Mc Hugh



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Preface

This report seeks to contribute to the understanding of the extent to which different hospital ‘models’ may provide lessons for hospital provision in England. It aims to inform the review led by Sir David Dalton into how to secure the clinical and financial sustainability of providers of NHS care through offering new options for organisational forms. It does so by means of an exploratory analysis of the experiences of four countries: France, Germany, Ireland and the United States, with England included for comparison.

The report was prepared as part of the project ‘An “On-call” Facility for International Healthcare Comparisons’, funded by the Department of Health in England through its Policy Research Programme (grant no. 0510002).

The project comprises a programme of work on international healthcare comparisons that provides intelligence on new developments in other countries, involving a network of experts in a range of countries in the Organisation for Economic Co-operation and Development (OECD) to inform health (care) policy development in England. For more information on the project please see www.international-comparisons.org.uk.

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Summary

The nature of hospital activity is changing in many countries, with some experiencing a broad trend towards the creation of hospitals groups or chains and multi-hospital networks, particularly in the United States, and, more recently, in European countries. There is an expectation that the formation of such groups and networks will lead to economies of scale and scope, reduced duplication of resources, more effective training, greater market influence, and improved efficiency in the provision of services, among other motivations.

In this report we contribute to the understanding of experiences in other countries about the extent to which different hospital ‘models’ may provide lessons for hospital provision in England. In particular we aim to explore the nature of group hospital provider structures and governance models and the extent to which these may be associated with greater efficiency and improved quality of service provision. We also seek to understand whether and how their evolution and further development may be facilitated by the wider national policy context of the health and regulatory systems. The evidence presented in this report seeks to inform ongoing policy thinking in the Department of Health on the clinical and financial sustainability of NHS organisations.

The report is comprised of an exploratory analysis of the experiences of four countries: France, Germany, Ireland and the United States, with England included for comparison. Data collection involved a review of the published and grey literature, using a structured template, complemented by information provided by key informants in the selected countries.

The organisation and governance of healthcare varies across countries

The countries reviewed provide examples of systems that vary in the way that healthcare services are organised and financed. For example, the health systems in France and Germany are funded mainly through statutory health insurance, while England and Ireland principally operate tax-based systems. The USA is a mixed system, with private sources dominating. The United States is currently also the most expensive system: in 2011, health spending as a percentage of gross domestic product and per capita spending was about twice that seen in England or Ireland.

Similarly, the five countries represent different approaches to the governance of healthcare. In the United States, healthcare governance is shared between the federal government and the states, while in Germany, responsibility for the publicly funded health system is shared by central government and corporatist actors, with state governments also playing a role. In England, healthcare policy is set nationally while the organisation of care is devolved to local organisations, and a similar approach can be observed for France,

with selected functions gradually decentralised to regional agencies. Conversely, in Ireland, the establishment in 2005 of the Health Service Executive has meant a recentralisation of responsibilities.

All five countries reviewed have experienced considerable change in key indicators of hospital care over the past two decades.

For example, the number of inpatient beds and length of stay have fallen in all countries while the number of inpatient cases and bed days have increased, reflecting a growth in hospital activity. There has also been a common trend in the financing of hospital care, with all countries using some form of activity-based system, using diagnosis-related groups (DRGs). In France and Germany, all hospitals that are reimbursed under the statutory system are now almost entirely paid through this mechanism, while in England, financing using DRGs is complemented by locally-negotiated volume-based contracts. In the United States, DRGs form the basis for financing within the Medicare and Medicaid systems only, while payments through private insurers or health plans are based on per diem rates. Ireland is about to introduce a DRG-based hospital financing system as part of the planned health reform that seeks to introduce universal health insurance.

In France, Germany and the United States, private hospitals contribute to the delivery of publicly funded healthcare services.

The overall definition of what constitutes a 'hospital' is similar across countries, considering features such as the provision of diagnostic and therapeutic services to be core. Within that overall definition, however, hospitals are classified in different ways, and may be distinguished by function (such as acute care or general hospital), or by legal status and ownership. France, Germany and the United States differentiate public from private not-for-profit and private for-profit hospitals and all of these forms contribute to the delivery of publicly funded healthcare services. Conversely, in England and Ireland, what is generally referred to as private is traditionally considered to be distinct from the publicly funded sector. Although the private hospital sector in England has taken on the provision of some NHS funded healthcare its overall role has remained small.

There has been a trend towards privatisation and the formation of hospital groups in France, Germany and the United States.

France, Germany and the United States experienced an increase in the number of private for-profit hospitals over the past two decades, with for example their proportion rising to a fifth of all hospitals in the United States and a third in Germany. There has also been a broader trend towards the creation of hospitals groups and multihospital networks in these three countries, with over 60 per cent of hospitals now part of some form of partnership, system or network as defined in the country. It is expected that this trend towards consolidation and the formation of hospital groups is likely to continue in these countries.

A number of factors have contributed to these inter-related changes, with hospital consolidation in France occurring mainly through the closure of private hospitals and a greater concentration of services in larger hospitals in an attempt to improve quality and safety. Financial pressures have also played a role, with tariffs for remunerating hospital activity having stagnated or decreased recently. In Germany, the main drivers included financial pressures, in particular a decline in public funding available to support capital

investment; regulatory efforts to enhance quality and safety through the introduction of minimum volumes; and the need to compete for patients in a market that is characterised by an oversupply of hospital capacity. In the United States, core drivers for consolidation include economies of scale alongside market forces and the greater negotiating power. The introduction of the Affordable Care Act has also led to increased merger activity.

Ireland is currently responding to recommendations that are likely to result in the formation of hospital groups, each with a unified governance and management structure with the vision that hospital groups will see the centralisation of high-risk care to larger centres.

Consolidation in the hospital sector has also occurred in England but the mode by which this has happened has differed from the other countries reviewed. Thus, during the late 1990s and early 2000s, NHS hospitals in England underwent a series of mergers, halving the number of short-term general hospitals and reducing the median hospital market from seven to five hospitals. These mergers aimed at addressing the problem of hospitals which were failing to meet their financial or quality targets, while also seeking to reverse the policy of competition between public hospitals for publicly funded contracts for healthcare that had been implemented in the preceding period. This differed from experiences in France, Germany and the United States, where consolidation has typically, although not always, involved privatisation, and was driven by a combination of factors, with the competitive environment in terms of capacity and economic pressures being seen to be among the main drivers.

The underlying market structure is not only important for understanding the drivers for hospital consolidation, but also for the likely impacts of change.

The evidence of the effects of hospital consolidation is not clear-cut, with the majority of empirical studies focusing on the impacts of hospital mergers, while less is known about the potential differential impacts of different forms of hospital consolidation that involve the formation of for example hospital groups or systems. Evaluation of the hospital mergers in the NHS in the early 2000s identified only limited impacts on outcomes, such as financial performance, productivity or clinical quality, and overall highlighted the importance of context and the drivers for change behind mergers as important factors determining 'success'. Commentators in various settings warned of the potential negative impacts of hospital consolidation and concentration, reducing the scope for competition, and, as shown in the United States, potentially leading to price increases. For Germany, it has been estimated that more than one third of hospitals are now located in strongly concentrated markets, in particular in rural areas, posing a risk for inefficiencies in the long term.

There is limited evidence suggesting that different forms of hospital cooperation, such as hospital groups, networks or systems, may have different impacts on hospital performance

Evidence that is available seems to support the notion that the performance of inter-hospital cooperation will be dependent on the nature of the cooperative arrangement in place. Hospital groups or systems that are owned and managed by a single legal entity may be more successful in achieving efficiency gains and improvements in the quality of care than hospital networks that are formed through strategic alliance or contract agreement. However, this is likely to depend on the context within which the different formations operate, for example, whether they are based in urban settings, in highly competitive regions

or in rural areas. This suggests that any hospital reconfiguration will have to take account of the context within which it is set. Thus, while a given approach that involves greater centralisation of activities may be appropriate for some settings it may be less suitable for others, and it would therefore be important to understand the specific inefficiencies in a given context first in order to then identify the most appropriate governance and structural model to address these inefficiencies.

While hospital consolidation may lead to quality improvements there are also some risks and it will be important to monitor the effects of consolidation to protect the public from unintended consequences

Hospital consolidation may lead to quality improvements as increased size allows for more costly investments and the spreading of investment risk. There is also evidence that a higher volume of certain services such as surgical procedures is associated with better quality of care. However, the association between size and efficiency is not clear-cut and there is a need to balance 'quality risk' associated with low volumes and 'access risk' associated with the closure of services at the local level. Benefits may be achieved through shared services with other hospitals, in recognition that economies of scale can be achieved through reducing the duplication of back office services and through the concentration of purchasing power. However, the services to be shared across hospitals may have to be selected carefully as evidence suggests that shared management and shared clinical workforce across hospitals may lead to poorer performance or inefficient use of resources.

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The views expressed in this report brief are those of the authors alone and do not necessarily represent those of the Department of Health. The authors are fully responsible for any errors.

1. Introduction

The hospital landscape in Europe and elsewhere is diverse and changing, reflecting different historical developments, cultures and political contexts.[1] Hospitals today are facing particular challenges. Spending on inpatient care constitutes a major expense in most OECD countries, ranging from 20–25 per cent of total current health expenditure in countries such as Canada and Spain up to almost 40 per cent in France and Greece (2011).[2] The rising burden of chronic disease, ageing populations and the costs associated with technological advances, alongside an increasing need for cost containment, require a rethinking of the traditional approach to organising and delivering health services, including hospital care.[3] Yet, given the time it takes to design and build hospitals, their configuration often reflects service delivery models that may not be suitable to effectively address contemporary service needs.[1] The main challenge for hospitals will therefore be to incorporate a high degree of flexibility enabling them to quickly adapt to changing needs and expectations.[4] This will also include the need to enhance and strengthen collaboration with primary care and other services located outside hospitals.

Whilst all countries are facing similar challenges, approaches to effectively addressing these differ, reflecting the different historical pathways pursued. Definitions of hospital vary across countries as a consequence of differing contexts within which hospitals have evolved. Moreover, the term ‘hospital’ covers a wide set of institutions, ranging from community or cottage hospitals with a small number of beds to large-size university hospitals that operate on multiple sites and comprise large numbers of staff. As the nature and scope of hospitals vary across countries, so does the way hospital care is governed, organised and financed.[5]

At the same time, common trends can be observed. For example, among public hospitals in tax-funded systems, there has been a move away from centralised political control towards the introduction of a greater degree of institutional autonomy and the use of market incentives.[6] Many countries have departed from the traditional approach of using global budgets for paying hospitals towards introducing activity-based funding.[7] Originating in the United States, this move was largely driven by a need to enhance overall efficiency.[8] The specific objectives for introducing this payment method varied across countries, and there is evidence from some that activity-based funding has, at least in part, contributed to changes in the structure of hospital activity, such as an observed concentration of selected specialties, and a growth in (profit-making) hospital chains in Germany, [9] or transfers and hospital mergers in France.[10]

This latter point is mirrored by a broader trend towards hospital consolidation and the creation of hospital groups and multi-hospital networks in a number of countries, particularly in the United States,[11] and, more recently, in European countries.[12] Depending on the context, this has involved

the formation of partnerships and cooperatives through to the merger and acquisition of hospitals,[13-15] although the policy context within which this has occurred has varied. More recently, countries such as Ireland have been pursuing policies of the mandated formation of hospital groups.[16] There is an expectation that such formations will lead to greater market influence, economies of scale and scope, reduced duplication of resources, more effective training, and improved efficiency in the provision of services, among other motivations,[17] although whether such goals can be achieved will depend on the context within which such hospital formations evolve.[18-20]

Against this background, there is an interest, in the Department of Health, to better understand experiences in other countries about the extent to which different hospital ‘models’ may provide lessons for hospital provision in England. There is a particular interest in understanding the nature of group hospital provider structures and governance models and the extent to which these may be associated with greater efficiency and improved quality of service provision. Also, there is an interest in understanding whether and how their evolution and further development may be facilitated by the wider national policy context of the health and regulatory systems.

This study seeks to contribute to this process through exploring:

- (i) The general approach to hospital care in a small set of high-income countries outside England and the national policy context within which the hospital landscape has evolved during the past decade.
- (ii) Trends in key indicators of hospital provision and the role of hospital groups in the countries under review.
- (iii) The core drivers of observed trends and main challenges facing the hospital sector in these countries.
- (iv) Some of the key features of a small number of hospital groups in each of the countries reviewed.

1.1. Methodological approach

Because of the limited timeframe available for this study, our approach to data collection and analysis was of necessity exploratory in nature.

Selection of countries

We chose to focus on four countries for review: France, Germany, Ireland and the United States. These countries were selected in consultation with the Department of Health. At the outset we sought to include countries, in which, judged on the basis of a preliminary review of the available literature, hospital groups and chains are forming a notable part of the hospital landscape. Ireland was included because it is beginning to develop a system of mandated hospital groups as described in the preceding section.

Data collection

The review was informed first by an assessment of the published literature and reports as identified from the bibliographic database PubMed and the search engine Google Scholar, as well as a review of websites of governmental and non-governmental agencies and organisations involved in the organisation and

delivery of healthcare, think tanks, and relevant research organisations in the countries included in this study.

The review sought to identify, for each country, information on:

- The general health system context.
- The organisation, financing and delivery of hospital care, including the definition of ‘hospital’, trends in the number and size of hospitals; principal mechanisms for the planning of hospital capacity and for financing hospitals and hospital care, principles of regulatory oversight of hospitals, and any changes that have occurred over the past decade.
- The drivers behind observed trends and challenges faced by the sector.

The template for data collection is presented in Appendix A.

Second, for France, Germany and the United States we identified examples of large hospital groups or networks for further assessment. Ireland was not included because, as noted above, hospital groups are only recently evolving. We sought to include at least two hospital groups per country in order to understand the possible range of governance models against the policy context within which they have evolved. Furthermore, we sought to review examples from both the public or private not-for-profit sectors and the for-profit sector to enable assessment of the specific motivations and governance models employed and whether and how these differed across sectors. Ideally, selection of hospital groups for review would have been informed by a set of criteria such as size (number of facilities, number of beds, number of admissions), range of services provided, financial turnover, market share, among other criteria. However, with the possible exception of the United States, these data were not easily accessible. Selection was therefore informed by an iterative search of the evidence that was available in the public domain, and that we judged as sufficiently detailed to provide insights into the points listed immediately above, such as recent annual reports and other materials. The selection was agreed in consultation with the Department of Health. Hospital groups included for review are shown in Table 1.

Table 1 Hospital groups in France, Germany and the United States included in the review

Country	Public or private not-for-profit hospital group	Private for profit hospital group
France	Assistance Publique-Hôpitaux de Paris (AP-HP) has been described to be among the largest public hospital groups in Europe.[12]	Générale de santé (GdS), is among the largest private hospital groups in Europe.[12]
	AP-HP comprises 37 hospitals in the Paris region, with about 92,000 staff, providing services to about 7 million people per year.[21]	In 2012, GdS operated through a network of 75 hospitals, some 23,500 staff and a patient volume of 1.2 million per year.[22]
Germany	AGAPLESION gAG ranks among the largest private not-for-profit hospital groups in Germany.[23]	Rhön-Klinikum AG is among the largest private for-profit hospital chains in Germany.[25]
	In 2012, it comprised 29 hospitals (among 90 facilities with beds overall), with 6,400 beds and	In 2013, it comprised 54 hospitals, including general hospitals and university hospitals with some 15,000 acute care beds and providing

Country	Public or private not-for-profit hospital group	Private for profit hospital group
	some 500,000 patients treated.[24]	services to some 2.6 patients.[26]
		In 2014, 40 hospitals of the Rhön group were taken over by the then second largest hospital group, Helios Kliniken.
United States	Intermountain Healthcare is a medium-sized not-for-profit health system in the US. In 2012, Intermountain Healthcare comprised 22 hospitals with some 140,000 admissions, about 1,100 employed primary care and secondary care physicians at more than 185 clinics, as well as community clinics.[27]	The Hospital Corporation of America (HCA) is the largest for-profit hospital operator in the US. At the end of 2013, HCA owned and operated 159 general, acute care hospitals with 42,240 licensed beds; operated five psychiatric hospitals with 556 beds; and, operated 115 outpatient healthcare facilities.[28]

Information on hospital groups included in the review was primarily identified from companies’ annual reports and websites. Data collection used a structured format with information synthesised to provide an overview of (i) the number and range of facilities and services provided; (ii) the mission of the hospital group; (iii) the group’s origins and evolution over time; (iv) ownership and governance arrangements; and (v) financial indicators.

In a third step, we carried out semi-structured interviews with key informants in France, Germany and the United States. These included experts involved in, or who are close observers of the organisation and operation of hospital care in the countries reviewed, such as representatives of hospital associations, researchers in the field of hospital care, as well as representatives of hospital groups reviewed. Key informant interviews sought to supplement the information collected through the evidence review. The number and range of key informants who agreed to be interviewed for this work varied by country, ranging from one in France (hospital association) and two in Germany (research) to four in the United States (research, hospital association, hospital group 1, hospital group 2). Of key informants representing hospital groups reviewed in this report, only those involved in relevant groups in the United States agreed to participate in the study.

Potential study participants were invited by an email, which included an explanation of the background to the study. Interviews explored the broad themes around hospital care in the country concerned, identified trends and challenges facing hospitals, the nature and role of hospital groups and chains and the role of the policy context, as well as perceptions of future developments. Where key informants represented specific hospital groups, we also explored specific questions around the evolution of the relevant hospital group, ownership and governance arrangements, principles of strategic approaches and anticipated future development, alongside other issues that the informants raised.

Interviews were carried out by telephone and followed ethical principles of conducting research involving human subjects. This means key informants were approached in their professional role only and no sensitive personal information was collected. Data protection measures were put in place to maintain the confidentiality of interview participants of whom written consent for participation in the interview was sought. Interviews were generally undertaken on a one-to-one basis, and conducted in English (United States), French (France) or German (Germany). They lasted on average 45 to 60 minutes, were audio-

recorded following consent, and transcribed verbatim. Because of the small number of key informant interviews undertaken, we refrain from identifying participants by affiliation. Instead, participants are identified by country only, and numbered consecutively. For example, 'IntFr01' refers to participant 1 from France.

1.2. About this report

This report proceeds as follows: in Chapter 2, we present the key observations extracted from the country reports. They take the form of a summative overview that highlights the findings that we considered most relevant in the context of this review. In this summary overview, we also include England for comparison, reporting on key indicators of hospital provision, drawing on data provided by the Department of Health. We conclude this chapter with a discussion of the implications of our findings for the English NHS. Chapters 3 to 6 present individual reports for France, Germany, Ireland and the United States. The country reports follow a similar structure, with a description of the health system context; the organisation, financing and delivery of hospital care; drivers and challenges; and a description of hospital groups in France, Germany and the United States, and the proposed introduction of mandated hospital groups in Ireland.

2. Overview of findings

2.1. Health system context

Table 2 provides a summary overview of selected features of health system financing and governance in France, Germany, Ireland and the United States, with England included for comparison (where data for England were not available or applicable we used data for the UK). With the exception of the United States, in all countries, healthcare services are publicly funded, mainly using national taxation (England, Ireland) or statutory health insurance (France, Germany). The United States is a mixed system, with private sources dominating.[29] The United States is currently also the most expensive system, as judged by health spending as a percentage of gross domestic product (GDP) and per capita spending, which, taking OECD data for 2011, was about twice that seen in England or Ireland.[30]

Countries considered in this report also represent different approaches to governing healthcare (Table 2). For example, in Germany, responsibility for the publicly funded health system is shared by central government and corporatist actors, with state governments also playing a role.[31] In the United States, healthcare governance is shared between the federal government and the states.[29] In England, healthcare policy is set nationally while the organisation of care is devolved to local organisations,[32] and a similar approach can be observed for France, where governance was traditionally concentrated at the national level but selected functions have gradually been decentralised to regional agencies.[33] Conversely, in Ireland, the establishment in 2005 of the Health Service Executive has meant a recentralisation of responsibilities from the previous regional health board structure.[34]

Table 2 Health system financing and governance in four countries and England (2011)

Main source of funding (% of total health expenditure)	Other sources	Health spending as % GDP	Per capita spending (US\$ PPP)	Governance of the publicly funded system
France				
Statutory health insurance: 73%	Taxation: 3.6% OOP: 7.5% VHI: 14%	11.6%	4,118	Traditionally concentrated at national level with gradual decentralisation of (selected) governance functions to regional agencies
Germany				
Statutory health insurance: 68%	Taxation: 8.6%	11.3%	4,495	Shared by central government, 16 state governments and corporatist actors; responsibility

Main source of funding (% of total health expenditure)	Other sources	Health spending as % GDP	Per capita spending (US\$ PPP)	Governance of the publicly funded system
	OOP: 13% VHI: 10%			for hospital sector mainly with the federal states
Ireland				
Taxation: 67%	OOP: 18% VHI: 12%	8.9%	3,700	Concentrated at the national level, with the Health Service Executive responsible for the provision and management of healthcare and personal social service, and for the budget of the health system.
United States				
Voluntary health insurance: 40% Public: 48%	OOP: 12%	17.9%	8,508	Federal system of government and market nature of the system mean that governance occurs at multiple levels and involves multiple organisations; Centers for Medicare & Medicaid Services (CMS) is responsible for administering the public health insurance programmes
England				
General taxation: 83%	OOP: 9.9% VHI: 7.3% (UK)	9.4%	3,405	Central level by government and agencies at arm's length from government; local organisations organise healthcare delivery

Note: SHI – statutory health insurance; OOP – out-of-pocket payments; VHI – voluntary health insurance; sources of funding list the key sources only and may not necessarily add up to 100 per cent.

Sources: OECD (2013)[30]; Rice (2013)[29]; authors' compilation from country reports (Chapters 3–6); for England, data provided by the Department of Health (England).

2.2. Organisation, financing and delivery of hospital care

Defining and categorising hospitals

The overall definition of what constitutes a 'hospital' is similar across countries, with features such as the provision of diagnostic and therapeutic services considered to be core. In France, the definition also includes an explicit commitment that hospitals contribute to public health services and health security.[35] Such a commitment is not made explicit in the definitions provided by other countries although in the United States hospitals are increasingly being asked to outline how they will be meeting the needs of the populations they serve (see Chapter 6).

In the United States, the majority of hospitals are considered 'community hospitals', that is, hospitals that are accessible by the general public and that are defined as all non-federal, short-term general and other special hospitals which include obstetrics and gynaecology; eye, ear, nose and throat; rehabilitation; orthopaedics; and other individually described specialty services.[36] This notion is very different from England or Ireland, where the term 'community hospital' traditionally refers to a local hospital that is typically staffed mainly by general practitioners and nurses who provide care in a hospital setting, often for predominantly rural populations.[37]

Countries further categorise hospitals according to for example function, distinguishing general or acute care hospitals from ‘other’ hospitals, with the latter comprising variously facilities that exclusively provide psychiatric, rehabilitation or long-term care services, among others. Hospitals are also classified according to legal status or ownership, distinguishing public from private ownership, with France,[38] Germany[39] and the United States[40] further differentiating private not-for-profit and private for-profit hospitals (Table 3). For example, in the United States, the main distinguishing feature between for-profit and not-for-profit hospitals is that the former can distribute profits among shareholders whereas the latter reinvest and become exempt from tax by providing an adequate level of community benefits, although in practice the definition of what constitutes adequacy of community benefits has remained subject to debate.[41] Such distinctions are not applied in England or Ireland, likely reflecting different legal traditions. Furthermore, in both England and Ireland what is generally referred to as private, or, in England, the independent sector, has traditionally been considered to be distinct from the publicly funded sector.[42] At the same time, during the 2000s, the private hospital sector in England has taken on the provision of NHS funded healthcare, for example in the context of independent treatment centres.[43] The overall role of NHS care delivered by private sector providers has remained small however, with one recent report estimating the proportion of NHS funded elective surgery in independent hospitals to be around four per cent.[44]

In contrast, in France, Germany and the United States, hospitals in the private sector, whether not-for-profit or for-profit contribute to delivering publicly funded healthcare care services, although the relative weight of their contribution varies. For example, in Germany, according to a survey among members of the Federal Association of Private Hospitals (BDPK), in 2009, about 93 per cent of patients treated in private for-profit hospitals were members of the statutory health insurance (SHI) system.[45] In the United States, for-profit and not-for-profit hospitals provide similar levels of publicly and privately funded care.[40]

Table 3 Hospital type by ownership in four countries and England

	Public hospital	Private not-for-profit hospital	Private for-profit hospital
France	<ul style="list-style-type: none"> • Comprise general hospitals and teaching hospitals • Owned by a local or national administration • Led by a director approved by the Prime Minister or the Ministry of Health 	<ul style="list-style-type: none"> • Owned and managed by a private institution (association, religious organisation, foundation) • Public interest mission • Some centres dedicated to cancer care (teaching and research) • Provide publicly funded healthcare services 	<ul style="list-style-type: none"> • Managed by private companies • No teaching or research mission • Provide publicly funded healthcare services
Germany	<ul style="list-style-type: none"> • Operated under public law: dependent (owner-operated municipal entity), or independent (public corporation) 	<ul style="list-style-type: none"> • Operated and owned by church-based, charitable or welfare organisations • Provide publicly funded healthcare services 	<ul style="list-style-type: none"> • Considered as business enterprises and require a licence under the industrial code • Provide publicly funded

	Public hospital	Private not-for-profit hospital	Private for-profit hospital
	<p>Operated under private law (e.g. limited company):</p> <ul style="list-style-type: none"> • Legal entity • Administrative units (federal/ state/ regional/ local government) or social insurance hold > 50 % of the nominal capital or voting rights 		healthcare services
Ireland	<ul style="list-style-type: none"> • Includes hospitals owned by the Health Service Executive as well as voluntary hospitals • Voluntary hospitals are operated by a lay board of governors; funded primarily by government 	Not defined	<ul style="list-style-type: none"> • Considered as business enterprises and require a licence under the industrial code
USA	<p><u>Community hospital</u>: accessible by the general public; defined as all non-federal, short-term general and other special hospitals (87% of all hospitals)</p> <ul style="list-style-type: none"> • State and local government: owned by state or federal government • Typically provide care to patients who would have limited access to care elsewhere • Have significantly higher proportion of patients who are uninsured or funded through Medicare or Medicaid 	<ul style="list-style-type: none"> • Non-government not-for-profit: typically supported by a board of trustees • Charity status: does not pay state or local property tax or federal income taxes • Has to prove certain community benefits in accord with state and federal guidelines • Provide publicly funded healthcare services 	<ul style="list-style-type: none"> • Investor-owned: owned by private investors or are publicly owned companies by shareholders in which case these companies can issue stocks to raise revenue for re-investment • Provide publicly funded healthcare services
England	<ul style="list-style-type: none"> • <i>NHS trusts, directly accountable to the Department of Health</i> • <i>Foundation Trusts</i> 	<ul style="list-style-type: none"> • <i>Generally referred to as 'independent' or 'private sector'</i> • <i>Considered as business enterprises and managed by private companies</i> • <i>Can provide publicly funded healthcare services but share is small</i> 	

Sources: Boyle (2011) [42]; IRDES 2011 [38]; ESRI (2013) [46]; Statistisches Bundesamt (2013) [39]; American Hospitals Association (2014) [36]

Trends in the provision of hospitals and hospital care

Table 4 provides an overview of selected key indicators of hospital care provision in four countries and England. Countries vary in their hospital capacity, with notable differences in for example the number of beds, ranging from 256 per 100,000 population in the USA to over 600/100,000 in Germany.[36 39]

Table 4 Selected key indicators of hospital care provision in four countries and England

	Total number of hospitals	Total number of hospital beds	Average number of beds per hospital	Average bed occupancy rate	Average length of stay
France (2011)	2,086 hospitals Public: 35% Not-for-profit: 29% For-profit: 39%	221,713 inpatient beds (350/100,000) Public: 62% Not-for-profit: 19% For-profit: 24%	Total: 106 Public: 176 Not-for-profit: 26 For-profit: 101	74.8% Public: 79.2% Not-for-profit: 72.4% For-profit: 63.9%	5.1 days
Germany (2012)	2,017 hospitals Public: 30% Not-for-profit: 36% For-profit: 35%	501,500 inpatient beds (624/100,000) Public: 48% Not-for-profit: 34% For-profit: 18%	Total: 249 Public: 400 Not-for-profit: 238 For-profit: 129	77.4% Public: 77.5% For-profit: 73.8%	7.1 days <i>(no difference in relation to ownership)</i>
Ireland (2012-13)	55 acute general hospitals 49 publicly funded (acute, maternity and orthopaedic) 24 private for-profit (total)	10,492 (acute hospital)	n/r	86.5%	5.4 days
USA (2010-12)	4,999 community hospitals State-local government: 21% Not-for-profit: 58% For profit: 21%	797,403 inpatient beds (256/100,000) State-local government: 16% Not-for-profit: 69% For profit: 15%	Total: 160	64.5% State-local government: 64% Not-for-profit: 66% For profit: 57%	4.8 days
England (2012/13)	247 NHS trusts (acute: 163; ambulance: 11; mental health and care trusts: 51; other: 51) (147 Foundation Trusts)	Average daily available beds (overnight): 138,178 258/100,000 population*	n/r	87.6% (average daily available overnight beds) (acute care: 89.8%)	5.2 days

Note: * authors' calculation, assuming 2012 mid-year population in England of 53.5 million (ONS 2013 [47])
Sources: IRDES 2011 [38]; Health and Social Care Information Centre (2013) [48 49]; ESRI (2013) [46]; Statistisches Bundesamt (2013) [39]; American Hospitals Association (2014) [36]; NHS England (2014) [50]

While there are differences in the number of hospitals, the number of inpatient beds per 100,000 population, bed occupancy rates and length of stay across countries as shown in Table 4, there are also similarities in the overall trends of hospital provision and these are broadly reflective of trends observed for England. For example, the number of inpatient beds and length of stay have declined in all countries over the past two decades while the number of inpatient cases and bed days have increased, reflecting the growth in activity. Thus, in France, the number of acute care beds fell by one third, from 620/100,000 in 1980 to 350/100,000 in 2011 and the average length of hospital stay fell by 50 per cent during the same period, to 5.1 days in 2011 while the number of inpatient cases increased by 20 per cent. In England, as the number of hospital beds has fallen, so has the average length of hospital stay, from 7.9 days in 2002/03 to 5.2 days in 2012/13.[49]

Cross-country comparison of changes in the number of hospitals is problematic, given the challenges in some countries, such as in England, of defining their total number. Observed trends in France[51] and Germany[39] show a considerable decline in their number over the past 20 years or so, although this fall has slowed from the early to mid-2000s. In Ireland the number of hospitals has shown little change in the past 20 years.[2]

Evidence presented in the country reports in Chapters 3–6 finds that it is possible, for France, Germany and the United States, to observe a structural change in the hospital landscape as it relates to ownership and legal status. All three countries saw an increase in the number of private for-profit hospitals in particular, with their proportion increasing to one fifth in the United States in 2010/2012 [36 52] and to 35 per cent in Germany (2012) (Table 4).[39] In France the number of private for-profit beds also increased although public hospitals have maintained their market share at about 65 per cent.[51] As noted, private hospitals in England are seen to be separate from the public health system and not routinely included in hospital statistics, so it is difficult to draw comparisons.

Planning of hospital capacity

Approaches to capacity planning in the hospital sector vary among countries, ranging from (de-)centralised planning approaches in countries such as France and Germany to what may be described as almost ‘no planning’ in the United States. For example, in France, responsibility for hospital planning is shared by the central Ministry of Health and the regional health agencies (ARSs).[33] The ARSs, on the basis of regional health schemes (PRSs), establish target agreements with hospitals to define services, volumes, and responsibilities for each hospital in their area to ensure that population needs are covered.

Similarly, in Germany, planning of capacity in the hospital sector is devolved to the state level, with the states sharing this task with regional and local authorities, regional associations of SHI funds, private insurers and hospitals.[53] A core feature is the development of a hospital plan, which determines the range of hospital services to be provided in a given region. Importantly, planning is closely associated with hospital financing and all hospitals that are included in a given state’s hospital plan qualify for funding for long-term investments from the state government. Inclusion in the plan is also a precondition for hospitals to qualify for reimbursement through the statutory health insurance system and this does include private for-profit hospitals.

In Ireland, the establishment of the Health Service Executive in 2005 recentralised the planning and delivery of health services into a single body, replacing the former decentralised regional system of Health Boards.[34] There are four administrative areas which are required to provide key services (including public hospital services) and to provide service plans that give a detailed breakdown of the allocated public funding in a given year.

In contrast, in the United States, there has been no central planning of hospital capacity since the 1970s and the market is generally left to determine provision. Some states operate a certificate of needs process whereby capital investment in new services has to be justified in terms of population need in an effort to control expenditure but there is little evidence that use of certificate of needs process has been effective in achieving this.[29]

Financing of hospital care

As noted in the Introduction to this report, although developments in the hospital sector have varied across countries, a common trend that can be observed is that of approaches to financing, with many countries having departed from global budgets towards financing based on activity, using diagnosis-related groups (DRGs).[7] This is summarised further in Table 5. Both France and Germany have introduced DRG systems in the early 2000s, although motivations for doing so differed. For example, Germany sought to reduce excess capacity in the hospital sector through the use of activity-based funding, while France aimed to harmonise payment mechanisms for public and private providers.[54] In France, hospital care has been financed through activity tariffs (T2A) based on DRGs since 2004,[33] and in Germany, DRGs were gradually phased in from 2003 and they became mandatory from 2004, and all hospitals that are reimbursed under the statutory system are now almost entirely paid through this mechanism.[7]

In England, NHS hospitals are financed through a combination of diagnosis-related groups (healthcare resource groups, HRGs) and locally-negotiated volume-based contracts.[55] Services provided by private hospitals are largely financed through private health insurance with a small share of NHS funded care, although this is estimated to be small.

The United States has a long tradition of using DRGs, but their use varies by payer.[29] DRGs form the basis for financing within the Medicare and Medicaid systems only, although the latter varies by state, with some also using per diem or cost reimbursement. Payments through private insurers or health plans are based on per diem rates, negotiated annually with each hospital or hospital system (see below).

Conversely, in Ireland, public hospitals are currently financed through a fixed (historical) budget, allocated by the Health Service Executive.[56] However, the planned health reform that seeks to introduce universal health insurance also foresees changing hospital financing towards a system based on episodes of care, using diagnosis-related groups ('Money Follows the Patient' system).

Table 5 Summary of hospital financing in four countries and England

Hospital financing

France	Since 2004, hospital care is funded through activity tariffs, based on diagnosis-related groups; DRG-based financing includes public, private not-for-profit and private for-profit hospitals as long as they are formally accredited by the national health authority (HAS). The tariff for private for-profit providers does not include salaries.
Germany	Since 2004, all hospitals are required to document their activity through diagnosis-related groups, and they are almost entirely paid through this mechanism. All hospitals that are listed in a 'hospital plan' in one of the 16 federal states will be reimbursed through this system (public, private not-for-profit and private for-profit). Hospitals listed in a plan are also entitled to receive a publicly funded capital investment subsidy.
Ireland	Hospitals are financed through a fixed budget, adjusted using diagnosis-related groups under National Casemix Programme (~70% of hospitals participate in the programme). The planned introduction of universal health insurance also foresees changing hospital financing towards a system based on episodes of care, using diagnosis-related groups ('Money Follows the Patient' system).
United States	<u>Medicare</u> : diagnosis-related groups (any hospital provider contracted by CMS) <u>Medicaid</u> : diagnosis-related groups, per diem and cost reimbursement (any hospital provider contracted by CMS) <u>Other</u> : per diem payment Capital investment from revenue generated, borrowed money, equity offerings, venture capital, capitalised leases, real estate investment trusts. Not-for-profit hospitals have greater access to public grants, donations and tax-exempt bonds.
England	<i>NHS hospitals are financed through a combination of diagnosis-related groups (~60% of hospitals' income) and locally-negotiated volume-based contracts. Services provided by private hospitals are largely financed through private health insurance with a small share of NHS funded care (estimated to be small, at ~4 per cent) Some new capital programmes have been financed through the private finance initiative.</i>

Sources: Chevreur et al. (2010) [33]; Geissler et al. (2011) [9]; PwC (2012) [55]; Department of Health (2013) [56]; Rice et al. (2013) [29]

Hospital groups and networks

We have noted earlier that there has been a broad trend towards the creation of hospitals groups and multihospital networks, particularly in the United States, but also in European countries, as we document in Chapters 3 to 6 of this report.[11 12] For example, in Germany and the United States over 60 per cent of hospitals are now part of some form of partnership, system or network as defined in the country.[36 57] In France, 60 per cent of private hospitals belong to a group, and in 2013 these represented 30 per cent of bed capacity in the private for-profit sector.[58] In Germany, an analysis of 65 large hospital enterprises or groups found that their market share rose from 25 per cent in 2005 to 31 per cent in 2011, and this growth was particularly pronounced among private for-profit hospitals.[57] It is expected that this trend towards consolidation and the formation of hospital groups is likely to continue in these countries.[11 59 60]

However, the degree to which 'hospital groups' or equivalent are formally defined varies by country. In the United States, the American Hospital Association distinguishes 'systems' and 'networks'. [36] The former comprise multihospital systems which consist of two or more hospitals that are owned, leased, sponsored, or contract managed by a central organisation. The definition also includes single, freestanding

hospital systems, which bring into membership three or more, and at least 25 per cent, of their owned or leased non-hospital pre-acute or post-acute healthcare organisations. Conversely, a ‘network’ is a group of hospitals, physicians, other providers, insurers or community agencies that work together to coordinate and deliver a broad spectrum of services to their community.

Such distinctions are more difficult to draw in other countries explored here. In Germany, the term ‘hospital group’ is not defined as such and is most frequently referred to as some form of ‘cooperation’ [15], which differs in terms of ownership and the range of services provided. In France, hospitals in the private sector tend to come together under a common ownership as part of a group or hospital chain, whereas in the public sector, teaching hospitals may cooperate with other hospitals while retaining their own identity.

With the possible exception of the United States, it remains challenging to draw systematic comparison of different forms of hospital groups or systems within or across countries. In the United States, the categorisation of hospitals into systems and networks has been used to inform policy and practice, as well as research into the performance of different groups and clusters.[61] Conversely, there is little systematic research in countries such as Germany and France, possibly reflecting that the formation of hospital groups in these countries is a relatively recent phenomenon. However, even where there has been research on the relative performance of different forms of inter-hospital cooperation, this has tended to assess individual hospitals within a given formation,[62] and the overall empirical evidence of the performance consequences of collaboration between healthcare providers remains weak.[63] We will return to the question of performance and efficiency below, where we will also discuss the drivers behind the formation of hospital groups, collaborations or networks.

As part of this study we have explored a small sample of large hospital groups or networks in France, Germany and the United States. In the absence of existing systematic comparative work, the examples we chose are for illustrative purposes only and we present selected features, mission, origins and evolution, governance structure and financial turnover of the hospital groups under study in Table 6. Further detail for each group is provided in the country reports for France (Chapter 3), Germany (Chapter 4), and the United States (Chapter 6).

Table 6 Selected features of hospital groups in France, Germany and the United States

	Public or private not-for-profit ownership	Private for-profit sector ownership
France	Assistance Publique-Hôpitaux de Paris (AP-HP)	Générale de santé
Features	37 hospitals (general hospital and other types of care facilities) Based in the Paris region 92,000 staff Provides 10% of hospital care in France	75 hospitals (general hospital and other types of care facilities) Presence across the country 23,500 staff Provides 16% of private hospital care in France
Mission	Public service mission including: <ul style="list-style-type: none"> • Delivering care to the Paris region population (from prevention and emergencies to highly specialised care) • Teaching and training (affiliation with medical schools and nursing schools) • Research 	Delivering high quality of care and efficiency
Origins and evolution	Medieval and catholic origins: the first hospitals were administered by nuns. Primary mission was to care for the poor and the terminally ill Secularisation in the 19 th century. History of centre of excellence for medical innovation and research	Created in 1987 to diversify private hospital care supply Phase of expansion in the 1990's with international activities Listed on the stock market since 2001 Focus on France and on acute care activities in the late 2000's
Governance features	Governance structure defined by law Director appointed by government, supported in its role by a directory, and controlled by a surveillance commission Medical committee representing physicians to advise on strategy at the group and sub-group level Hospitals gathered in 12 sub-groups, with governance structure similar to group structure Five centralised services (procurement of non-medical goods and services, procurement of pharmaceuticals, laundry services, ambulance services, safety and maintenance services)	Owned by shareholders President and administrative board supported by audit and finance committees Medical committee representing physicians to advise on strategy at the group and hospital level Structure in hubs and network with some facilities within same geographical reach grouped into hubs
Financial turnover	€6.7 billion Deficit has been reduced in recent years, to reach -€20 million in 2012	€1.9 billion Group has recently sold mental health activities to focus on acute care and rehabilitation

	Public or private not-for-profit ownership	Private for-profit sector ownership
<i>Germany</i>	AGAPLESION (2012)	Rhön-Klinikum AG (2013)
Features	<p>29 hospitals (6,400 beds), mostly providing general acute care with elements of tertiary care</p> <p>31 nursing or residential homes (>3,000 places); assisted living/support (800)</p> <p>3,460 medical and nursing staff (full-time equivalent)</p> <p>~500,000 patients treated</p> <p>Ranked second-largest (by total bed count) private not-for-profit hospital group in 2012</p>	<p>54 hospitals (>15,000 beds)</p> <p>41 medical care centres</p> <p>2.6 million patients treated</p> <p>In 2013, the third largest private hospital group in Germany (as measured by bed count and financial turnover)</p>
Mission	<p>Values anchored in Christian faith, forming the basis for activities combined with excellence in medical and nursing care as well as responsible management</p> <p>AGAPLESION derived from Greek 'agapéseis tôn plesion' (love thy neighbour)</p> <p>Driven by 6 core values: charity, respect, responsibility, transparency, professionalism, efficiency</p>	<p>Stated aim is to provide 'high-quality and affordable care close to home for everyone'</p> <p>Emphasis is on safeguarding autonomy in medical decision which the company interprets as a core condition for the delivery of high-quality care; interdisciplinary collaboration between doctors and nurses and the endorsement of integrated delivery models; and the promotion of innovation locally and across hospitals and external partners, drawing in particular on the research portfolio of its partner university hospitals</p>
Origins and evolution	<p>Founded in 2002 as non-profit joint stock company between Frankfurter Diakonie Kliniken (established in 1998) and 2 other hospitals in Heidelberg and Darmstadt</p> <p>Continues growth over time, most recently merger with a non-profit, charitable group, adding 5 hospitals, 4 nursing homes and medical care centres ('policlinics') (2012)</p>	<p>Has its origins in the take-over of operations of a spa and rehabilitation centre in Bad Neustadt an der Saale (the company's headquarters) by the company's founder in 1973</p> <p>Move into acute hospital care from the 1980s</p> <p>Listed on stock market as first hospital group in Germany in 1989</p> <p>Initially expanded through the establishment of new facilities but from mid-1990s also through acquisition of other hospitals, including (also for first time)</p>

	Public or private not-for-profit ownership	Private for-profit sector ownership
		of a university hospital (in 2006) In September 2013, takeover of 40 hospitals and 13 medical care centres by Helios-Kliniken authorised by the German competition authority; from 2014 downsized to five hospital sites with 5,000 beds and >15,000 staff
Governance features	Establishment as non-profit joint stock company motivated by desire to cooperate in order to grow Board of Trustees (18 members) which oversees management of the company Board of Directors manages the company Twenty shareholders Model of participation enables independence in local decisionmaking: newly integrated hospitals are acquired at a 60% share, permitting previous shareholders to retain strong position Integrated management structure	Converted from limited company to joint-stock company in 1988 States that good corporate governance was a 'high priority', which, alongside a 'transparent, legally flawless and ethical' culture formed the prerequisite for sustainable operations Governance model include management board, board of directors (20 members, chaired by the founder of the company), and seven standing committees (of which 5 with executive function), and advisory board to advise management board on trends in hospital care and medicine more broadly
Financial turnover	Registered capital (2012-13): €16.6 million, divided into ~332,600 shares (at €0.50 each) Investments of a total of €66.4 million in 2012 (of which 63% from own resources) Income hospital services (2012): €450.5 million; other areas: €120.5 million Total profits:€9.9 million	Turnover of €3 billion (a 5 per cent increase on 2012) Overall profit of €90 million (a loss of 2.6 per cent on 2012) Revenue generated from the provision of hospital services: €2,905 million; for medical care centres it was €58.5 million and for rehabilitation services it was €50 million
<i>United States</i>	Intermountain Healthcare	Hospital Corporation of America
Features	22 hospitals, located in Utah and south-eastern Idaho 1,100 primary and secondary care physicians in >185 clinics (physician group) Owns and operates 6 community clinics and supports 12 further independent clinics	Owns and operates 159 general hospitals (>42,200 beds), operates 5 psychiatric hospitals (560 beds), operates 115 outpatient healthcare facilities in 20 USA states Provides approx. 4–5% of inpatient care in the US Some hospitals have affiliations with medical schools but do not typically engage in extensive research or teaching
Origins and evolution	Established in 1970 as a non-profit organisation to administer a 15-hospital system donated to the community by Church of Jesus Christ of Latter-day Saints	Formed in 1968 as a hospital management company by three physicians in Nashville

	Public or private not-for-profit ownership	Private for-profit sector ownership
	<p>Evolved into multi-hospital system by 1985 but with little integration across</p> <p>Reorganisation from 1985 geographically and administratively</p> <p>System integration from 1992</p>	<p>Expanded through acquiring facilities and building new hospitals and contracting to manage hospitals for other owners</p> <p>Rapid growth, from 26 hospitals and 3,000 beds by end of 1969 to 349 hospitals with >49,000 beds in 1981</p> <p>Period of consolidation during the 1980s; emerged as a public company in 1992, followed by ongoing re-structuring</p> <p>In 2006 acquired by a private investor group and became a private company (for the third time) but reverted back to publicly traded company in 2011</p>
Mission	<p>'A mission of excellence in the provision of healthcare services to communities in the Intermountain region'</p> <p>Commitment to provide care to those who live in the Intermountain region who have a medical need, regardless of ability to pay</p>	<p>Commitment to 'the care and improvement of human life and strives to deliver high quality, cost effective health care in the communities we serve'</p> <p>HCA Code of Conduct provides guidance on carrying out daily activities within appropriate ethical and legal standards</p>
Governance features	<p>Central executive leadership (CEO, COO, CFO, CSO)</p> <p>Organised at regional level with similar executive committee structure</p> <p>Officers and leaders from regions and divisions involved in system-wide decisionmaking</p> <p>Central Board of Trustees oversees operation</p>	<p>Owns and operates some of its healthcare facilities while also operating facilities on behalf of other owners</p> <p>Provides resource and support to its facilities but management decisions are taken locally</p> <p>Corporate governance involves a central Board of Directors & Officers and a number of committees which serve to assist the Board of Directors in fulfilling its responsibilities (e.g. Audit & Compliance Committee, Compensation Committee, Nominating & Corporate Governance Committee, Patient Safety & Quality of Care Committee)</p>
Financial turnover	<p>As Intermountain Healthcare is open to patients not enrolled with its own health plan (SelectHealth); payment for patient services comes through a range of sources including Medicare and Medicaid</p> <p>In 2012, total funds available compensated for total funds used (USD4,919 million)</p> <p>Non-profit status means that the organisation needs to spend on charity care more than they would have otherwise paid in taxes</p> <p>Usually targets a margin of 3% to allow for reinvestment into infrastructure and services</p>	<p>HCA receive payment for patient services through Medicare, Medicaid or similar programmes, managed care plans, private insurers and directly from patients</p> <p>In 2013 the largest source of revenue was from managed care and other insurers (54.6%) with Medicare as the next largest source (23.3%)</p> <p>Total revenues for 2013 after provision for bad debt were USD34,182 million against outgoings of USD31,236 million resulting in a net income of USD1,966 million</p>

RAND Europe

Source: authors' compilation from country reports (Chapters 3-6)

2.3. Drivers behind observed trends and challenges

Our review of trends in hospital care in four countries indicates that all have experienced considerable change over time, reflecting efforts to meet the conflicting demands arising from a changing burden of disease coupled with an ageing population, rapid advances in technology and increasing public expectations against an increasingly challenging financial environment.[3] Technology has made it possible to provide many services that previously would have required an inpatient stay on a day-case basis or in an ambulatory care setting, requiring hospital providers to adapt service delivery to changing population and market needs.

We have observed an increasing trend towards hospital privatisation and consolidation in three of the countries reviewed, France, Germany and the United States. In France this has occurred through closure of private hospitals and greater concentration of services in larger hospitals to improve quality and safety, although financial pressures have also played a role, with tariffs for remunerating hospital activity having stagnated or decreased in the past three years.[64] In the United States, economies of scale are thought to be among the core drivers for consolidation but market forces and the greater negotiating power that comes with increasing market share have also been important factors.[11] More recently, following the introduction of the Affordable Care Act, commentators expect a reduced growth in Medicare hospital reimbursements, with increased merger activity being observed as a consequence.[60]

In Germany, there has been a trend towards cooperation and privatisation of hospitals, driven mainly by a combination of financial pressures,[57] regulatory efforts to enhance quality and safety through the introduction of minimum volumes[65] and the need to compete for patients in a market that is characterised by an oversupply of hospital capacity.[66] A particular challenge has arisen from a decline in public funding available to support capital investment of licensed hospitals;[57] this has meant that hospitals have increasingly had to draw on income allocated to pay for operating costs in order to fund investments. Ireland is currently responding to recommendations that are likely to result in the formation of hospital groups, each with a unified governance and management structure with the vision that hospital groups will see the centralisation of high-risk care to larger centres, maximising the use of smaller hospitals for low-risk cases through referral pathways.[16]

It is within this context that observed hospital closures, mergers but also collaboration between hospitals within groups, networks and systems will need to be interpreted. There was a perception among key informants interviewed for this study that consolidation into health groups and systems will increase economies of scale while strengthening hospitals' negotiating power and position in the market. Consolidation may be encouraged by regulatory changes such as in the United States, where a requirement to have one staffing structure per hospital was recently removed. This means that hospital systems can now pool staff across hospitals within the system and this is thought to provide greater efficiency for the system. In France, new technical requirements for obstetrics services have led to the consolidation of that sector during a period of 10 years through the closure and mergers of smaller facilities while increasing the market share for larger maternity hospitals.[67]

Other factors to be considered in the context of hospital consolidation include access to capital. This issue was raised in Germany, where it was noted that public hospitals would find it more challenging to raise

capital compared to private (for-profit and not-for-profit) hospitals.[45] Teaching hospitals in France and academic medical centres in the United States were thought to have a particularly powerful position as their reputation and would make them more attractive to investors. Thus, in the United States, about 20 per cent of mergers and acquisitions in 2010 involved academic medical centres which tend to expand their reach beyond traditional regional markets.[68]

2.4. Implications of our findings for the English NHS

When considering the observations of this exploratory study, two questions that emerge are whether and to what extent changes in the hospital structure have led to greater efficiency in the countries reviewed, and the lessons that might be drawn from this analysis for the NHS. In this context it is important to highlight that the trend towards hospital consolidation which we have observed for France, Germany and the United States has also occurred in England during the past decade, but the modes by which this was achieved differed. Hospital consolidation can be realised through the merger of hospital providers into single entities or ‘systems’, or the formation of groups and networks, and which may or may not involve privatisation. As we have described above, in France, Germany and the United States, consolidation has typically, although not always, involved privatisation, and this was driven by a combination of factors, with the competitive environment in terms of capacity and economic pressures being seen to be among the main drivers. This contrasts with the experience in the English NHS, where consolidation of the public hospital market in the late 1990s and early 2000s was largely achieved through a merger of public hospitals that were co-located geographically.[20] Thus, between 1997 and 2006, out of 223 short-term general hospitals in England, 112 had merged between 1997 and 2006, reducing the median hospital market from seven to five hospitals. The public hospital mergers were motivated by a desire of the government in power at that time to reverse the policy of competition between public hospitals for publicly funded contracts for healthcare that had been implemented by the preceding administration and in an effort to address the problem of hospitals which were failing to meet their financial or quality targets.[20]

The underlying market structure is not only important for understanding the drivers for hospital reform, but also for the likely impacts of change. Thus, one analysis of public hospital mergers in England during the late 1990s through to the mid-2000s points to a limited impact on outcomes such as financial performance, productivity or clinical quality, with the only exception being a reduction in activity.[20] It also showed that where markets were already concentrated, mergers achieved relatively smaller gains. One other study, examining the impact of mergers of NHS trusts in the London area in the early 2000s found evidence of negative effects on the delivery of services and delays in the development of new services.[69] Also, anticipated savings in management costs were not achieved. While this lack of success can be explained, at least in part, by failure to take account of the complexity involved in organisational change at scale, study authors also highlighted the importance of context and the drivers of change behind mergers as important contributors.[19] Gaynor et al. (2012), in their assessment of hospital mergers in the English NHS in the early 2000s have further cautioned that merger activity may not be the most appropriate way of addressing poorly performing hospitals as they reduce the scope for competition.[20] A similar point was recently brought forward in the context of the US healthcare system, albeit from a different

perspective, given the differences in the hospital market. Thus, Cutler and Scott Morton (2013) noted that the recent Affordable Care Act is leading to significant consolidation in the hospital sector towards an increasing concentration of a small number of locally integrated health systems, typically built around large academic medical centres.[11] While there are recognised benefits of larger ‘systems’ such as the likely better coordination of care across different providers, and evidence of improvements in the quality of care where there has been an increase in the volume for specialised services, the authors also pointed to potential negative impacts because of enhanced market power, with some evidence of price increases attributable to mergers.[70 71] For Germany, it has been estimated that more than one third of hospitals are now located in strongly concentrated markets, in particular in rural areas, posing a risk for inefficiencies in the long term.[72]

Much of the literature on hospital consolidation has focused on the impacts of hospital mergers (Box 2.1) but it has not typically examined the possibly differential impacts of different forms of hospital consolidation that involve the formation of for example hospital groups or systems. One analysis conducted in the United States by Dranove and Lindrooth (2003) compared mergers, in which hospitals consolidate financial reporting and licenses, with local multi-hospital systems, in which two or more hospitals in the same geographic area have common ownership, but maintain separate physical facilities, do business under separate licences, and keep separate financial records.[73] This study found that consolidation into hospital systems did not generate savings in the long run while hospital mergers generated savings of approximately 14 per cent over up to four years following the merger.

Although it is difficult to generalise from this study to other contexts, evidence that is available seems to support the notion that the performance of inter-hospital cooperation will be dependent on the nature of the cooperative arrangement in place. Thus, a recent empirical study of 382 hospitals in Taiwan compared hospital systems, which were defined as cooperative relationships that are formed by multiple hospitals and that are owned and managed by a single legal entity, with hospital networks, described as cooperative relationships formed by a group of hospitals through strategic alliance or contract agreement.[63] Defining hospital performance as a combination of technical efficiency as well as quality based on an annual rating of structure, process and outcome measures, the analysis showed that while inter-organisational cooperation between hospitals had positive effects on hospital performance overall, cooperations classified as systems had greater positive effects on hospital efficiency than networks. It further found that the positive effects of participating in a hospital system were especially important for private hospitals, local community hospitals, and hospitals in highly competitive regions.

Box 2.1 Impacts of hospital mergers: a brief overview of selected empirical studies

The overall empirical evidence on the impacts of hospital mergers on outcomes such as technical and cost efficiency has remained inconclusive. The vast majority of studies originate from the United States, with some suggestion of positive impacts of hospital mergers on technical efficiency and cost efficiency,[73] while other evidence points to potentially negative effects on patient outcomes.[74] Elsewhere, an analysis of seven hospital mergers involving 17 hospitals in Norway during 1992 and 2000 found some evidence for improvements in technical and cost efficiency, but this was limited to one large hospital merger that involved considerable restructuring of treatment processes.[75]

Two studies of a programme of system-wide hospital restructuring in Denmark and the province of Ontario in Canada respectively identified the potential for achieving gains from improving technical efficiency and economies of scope as a result of mergers and strategic consolidation in the hospital sector.[76 77] However, both studies only examined the potential for gains to be made based on pre-merger data, and Kristensen et al. (2012), in a further analysis of the proposed restructuring of the hospital sector in Denmark, highlighted the need for post-restructuring studies in order to assess the degree to which such hypothesised gains will be achieved in practice,[78] pointing to evidence of failure of a strategy of horizontal integration in the UK in the early 2000s and in the United States.[79] One analysis of the effects of hospital mergers in Portugal during the 2000s that was able to examine pre- and post-merger data found that mergers between two or more hospitals led to statistically significant post-merger cost increases of about eight per cent.[80]

Overall, the empirical evidence on the nature of cooperative arrangements between hospitals and their impact on performance remains scarce. It is conceivable that the nature of the impact of different forms of hospital cooperation may also differ in relation to the hospital market in which they operate.[81] This is further illustrated by an analysis of different types of hospital systems in eleven states of the United States during 1995–2000, which found that systems classified as centralised were associated with lower mortality from myocardial infarction (AMI), congestive heart failure and pneumonia.[82] Centralised systems were defined as delivery organisations in which the system centrally organises hospital services, alongside other services (physician arrangements, insurance product development); centralised systems tended to be located in urban areas with hospitals in close geographic proximity to another. However, those classified as independent hospital systems, that is largely horizontal aggregations of hospitals in which each maintains substantial autonomy in their local geographical areas, also had better AMI quality outcomes compared with less centralised or decentralised systems. There were no differences in inpatient mortality among system types for the stroke outcome.

This latter study highlights that it will be important to distinguish different forms of hospital groups or systems when assessing performance, including patient outcomes. The authors argued that improved outcomes for centralised systems are likely attributable to more effective coordination of key activities within and between hospitals, and between hospitals and other elements of the delivery system. The positive outcomes of independent systems were explained by their focus on mainly inpatient hospital services, and their autonomy in their local geographical areas, typically rural settings. This might facilitate relatively greater expertise in inpatient hospital care while also taking account of the specific needs of the local market. Although it focuses on a small number of outcomes this study is important as it highlights that any hospital reconfiguration will have to take account of the context within which it is set. Thus, while a given approach that involves greater centralisation of activities may be appropriate for some settings it may be less suitable for others, and it would therefore be important to understand the specific inefficiencies in a given context first in order to then identify the most appropriate governance and structural model to address these inefficiencies.

Returning to the findings reported in our study as they relate to the hospital markets in France, Germany and the United States, it is perhaps fair to say that their nature is changing rapidly, with developments in the United States recently described as ‘a merger frenzy [as a consequence of the Affordable Care Act], with hospitals scrambling to shore up their market positions, improve operational efficiency, and create

organizations capable of managing population health'.^[60] There are warnings which highlight the potential unintended consequences of recent trends, and which point to the possibility of substantial price increases because of market concentration that might not be outweighed by other benefits such as improved patient outcomes.^[11 60] We have noted that the hospital market in the United States is very different from that in England, and indeed also from that in France or Germany. At the same time, the potential challenges of market concentration have also been raised in these countries,^[72] highlighting the need for policymakers to put in place appropriate frameworks to protect the public from the potential negative effects of hospital consolidation. But again, the hospital sector in these countries differs in several ways from that in the English NHS as we have described in this report. Thus the former are characterised by a larger number of smaller sized hospitals, with private hospital groups playing an important role; this creates a different dynamic to that within which NHS hospitals operate.

There is a persuasive argument that hospital consolidation may lead to quality improvements as increased size allows for more costly investments and the spreading of investment risk; also there is evidence that a higher volume of certain services such as surgical procedures is associated with better quality of care.^[11] However, the association between size and efficiency is not clear-cut and the evidence described above suggests that the scope for quality and efficiency gains will depend on the context. For example, Monitor (2014), in a recent assessment of smaller acute care providers in the English NHS argued that while increased volumes improve the quality of care, this will be for a set of specific procedures and up to a certain level only, and that there is a need to balance 'quality risk' associated with low volumes and 'access risk' associated with the closure of services at the local level.^[83] In the context of small providers in particular, Monitor (2014) recommended that benefits may be achieved through shared services with other hospitals, in recognition that economies of scale can be achieved through reducing the duplication of back office services and through the concentration of purchasing power.^[84] However, the services to be shared across hospitals may have to be selected carefully as evidence suggests that shared management and shared clinical workforce across hospitals may lead to poorer performance or inefficient use of resources.^[83]

3. France

3.1. Health system context

The French health system is based on statutory health insurance (SHI) and provides all residents with health coverage, as per the 1999 Universal Health Coverage Act (CMU).[85] The Ministry of Social Affairs and Health principally oversees overall health sector planning and guidance on health policies. Regions, represented by Regional Health Agencies (ARSs), have an increasingly important role in the planning, delivery and financing of healthcare services, together with public health programmes at the regional level. Established in 2010, following the 2009 Hospital, Patients, Health and Territories Act (HPST Act)[86] the ARSs are responsible for health and social care, public health, and care for the elderly, and they have to ensure that healthcare provision meets the needs of the population in coordinating these sectors, while respecting national health expenditure objectives.

In 2011, France spent an estimated 11.5 per cent of its GDP on health.[30] The SHI funds about three quarters of the healthcare system (73.1 per cent), with the remainder financed through taxation (3.6 per cent), voluntary health insurance (14 per cent) and out-of-pockets payments (7.5 per cent).[87]

Under the SHI, patients are entitled to access a comprehensive set of healthcare services, including hospital care and treatment in public or private facilities providing healthcare, rehabilitation or physiotherapy; outpatient care; diagnostic services and care; pharmaceutical products, medical appliances and prostheses prescribed and included in the positive lists of products eligible for reimbursement; and prescribed healthcare-related transport.[33]

Health services are delivered by public and private providers in ambulatory care and in hospital. Primary care is principally delivered by general practitioners (GPs) whose majority work in private practice as self-employed professionals. Specialist care is delivered in both ambulatory care settings by self-employed specialists and in public or private hospitals. Ambulatory care providers (primary care and specialist care providers) are free to establish their practice where they want, and until recently patients could access such care directly, without referral or being registered on a patient list.[33] Since the Health Insurance Reform Act (2004)[88] however, a voluntary gatekeeping system has been introduced through the preferred doctor scheme (*médecin traitant*), whereby residents are encouraged to sign up with a 'preferred doctor' as their first point of contact with the healthcare system. GPs then refer them to specialist care.

The share of hospital care in in healthcare utilisation reached a peak in 1982 (54.7%) before decreasing steadily until 2002 and stabilising at around 46 per cent since then.[89] In 2012, hospital care accounted for 46 per cent of healthcare utilisation, for a total of €1,300 per person (Figure 1).[89] Of this amount, €991 was spent in the public sector, and €308 in the private sector.

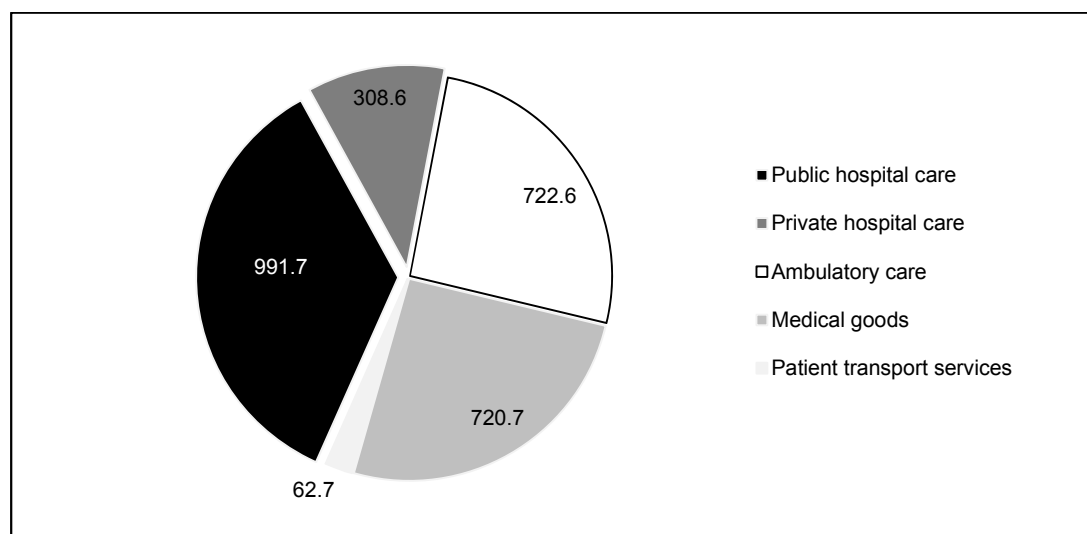


Figure 1 Health expenditure by category per capita in Euros, 2012

Source: Adapted from IRDES (2013) [89]

3.2. Organisation, financing and delivery of hospital care

3.2.1. Defining and categorising ‘hospitals’

The Public Health Code defines hospitals as facilities which ‘provide diagnostic, surveillance and treatment for those suffering a disease or an injury, and pregnant women. They provide care in inpatient or ambulatory settings and contribute to care pathway coordination. They contribute to public health services and health security.’[35]

There are four main types of organisations offering inpatient beds for the delivery of care: acute care hospitals providing a range of services in medicine, surgery and/or obstetrics (*Médecine, Chirurgie, Obstétrique*; MCO); long-stay facilities for older patients who require 24 hour care; follow-up and rehabilitation facilities; and psychiatric hospitals.[90] This study focuses on the first category, i.e. acute care hospitals.

The 2009 Health Reform (HPST Act)[86] has simplified the classification of acute hospitals, redefining status under a limited number of categories. Hospitals are public, not-for-profit and for profit.[38]

- *Public hospitals* comprise general hospitals (CH) and teaching hospitals (CHU).¹ They are owned by a local or national administration and their governance and administration is subject to rules and structure defined by law. For example, each public hospital is led by a director whose nomination is ratified by the Prime Minister or the Ministry of Health.[35] Their mission is guided by a set of values and principles (e.g. no selection of patients and no charge beyond the statutory tariffs) and they are mandated to provide universal access to all services. CHUs have a teaching and research mission and are closely linked to medical schools. The term CHU refers to

¹ This category also comprises nine hospitals administered by the military which contribute to acute care delivery for the general population and about 75 per cent of their patients are civilians.

both a single teaching hospital as well as hospital group, as all teaching hospitals are heading a hospital group in their area, including one or several smaller non-teaching hospitals or rehabilitation facilities. Public hospitals hold 75 per cent of acute medical care capacity and perform 75 per cent of full-time acute episodes.[33]

- *Private not-for-profit hospitals* have a public interest mission (Etablissements de santé privés d'intérêt collectifs; ESPIC) and share the same values and principles as the public hospitals, committing to accessibility and continuity of care.[91] Private not-for-profit hospitals are owned and managed by a private association, religious organisation or foundation. Among them there are 22 cancer treatment centres which have a teaching and research mission similar to the one of CHUs. According to the Federation of Cancer Centres, in 2010, 10 per cent of cancer patients in France were treated in one of the cancer centres.[92]
- *For-profit hospitals*, or private clinics, are managed by private companies with commercial objectives. They contribute to the delivery of care under the SHI. Private clinics do not have a teaching or research mission. They tend to be more specialised than public hospitals, focusing on the delivery of certain types of procedures and treatment (e.g. colposcopy and day surgery). Private for-profit hospitals account for 10 per cent of beds and provide 15 per cent of episodes (see also below).[33]

Each category of hospital is represented by a national federation which actively lobbies the Ministry of Health to support their members' interests at the national and local level. These are the French Hospital Federation, which represents public hospitals,[93] the Federation of Hospital and Dependence Facilities, representing private not-for profit hospitals,[94] and the Federation of Private Hospitals.[95]

Number and size of hospitals by type

In 2011, there were 2,086 acute care hospitals: 835 public, 551 private for-profit and 700 private not-for-profit (Figure 2). Public hospitals tend to be larger than private hospitals, operating 231,948 beds compared with 57,117 in private not-for-profit and 60,054 in private for-profit hospitals.[91] This represents an average of 227 beds per public hospital, 109 beds per private for-profit hospital and 82 beds per private hospital.

In 2011, there were about 350 hospital beds per 100,000 population.

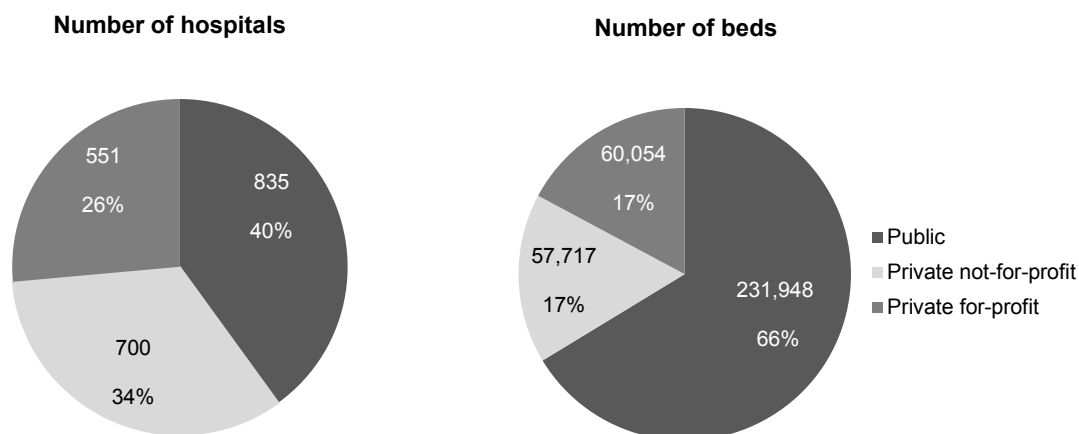


Figure 2 Number of hospitals and hospital beds by ownership, 2011

Source: Adapted from Boisgu erin and Brihault (2013)[91]

In 2011, hospitals had 180,256 medical staff, of whom 85 per cent were doctors and 15 per cent physicians in training. Among doctors, 72.4 per cent were salaried and the remainder self-employed. Physicians in training are principally employed in public hospitals, and they represent 10 per cent of the medical workforce in private not-for-profit hospitals (Table 7). Across all sectors, nurses represent about 30 per cent of all hospital staff (medical and non-medical). Overall there has been a slight increase in the number of full-time staff working in hospital between 2010 and 2011, mostly driven by an increase in the medical workforce.[91]

Table 7 Full-time hospital staff in France, 2011

	Public hospitals	Private not-for-profit	Private for-profit	Total	Change 2010–2011
Medical staff					
Physicians	94,877	16,838	41,843	153,558	
Salaried	93,509	12,989	4,739	111,237	
Self-employed	1,368	3,849	37,104	42,321	
Trainees	25,056	1,567	75	26,698	
Total	119,933	18,405	41,918	180,256	+0.6%
Non-medical staff and midwives					
Administrative staff	95,884	18,218	19,152	133,255	
Non-medical	515,749	78,357	101,217	695,323	
Midwives	10,913	967	2,408	14,288	
Nurses	222,848	32,269	43,609	298,726	
Healthcare assistants	172,565	22,593	30,020	225,178	

	Public hospitals	Private not-for-profit	Private for-profit	Total	Change 2010–2011
Other	109,422	22,528	25,181	157,131	
Education and social staff	11,055	3,297	845	15,197	
Technical staff	136,864	16,137	11,082	164,083	
Total	759,552	116,009	132,296	1,007,858	+0.1%

Source: Adapted from Boisguérin and Brihault (2013)[91]

Trends in the number of hospitals and hospital beds

Figure 3 provides an overview of trends in some of the key indicators of hospital capacity over a period of 30 years. This shows that between 1980 and 2011 the average length of stay has halved, while the number of acute care beds has fallen by one third. At the same time, the volume of inpatient cases rose by 30 per cent.

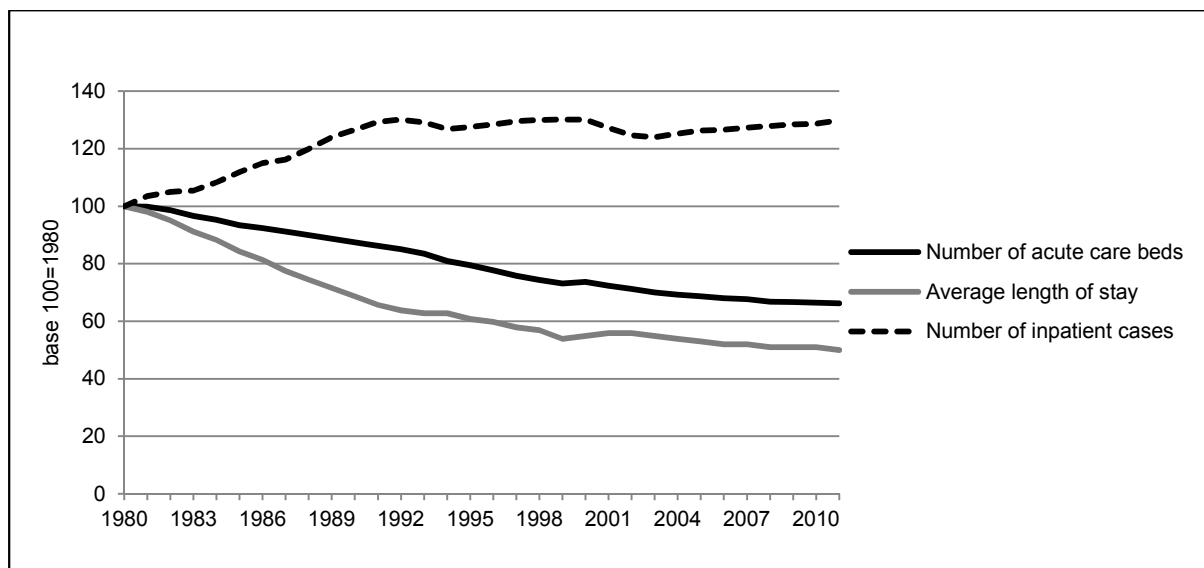


Figure 3 Trends in key indicators of hospitals in France, 1980–2011

Source: Eco-Santé (2104) [51]

The fall in the number of hospital beds is further illustrated in Figure 4, which shows that much of the decline occurred during the 1980s through to the early 2000s, with relatively little change thereafter.

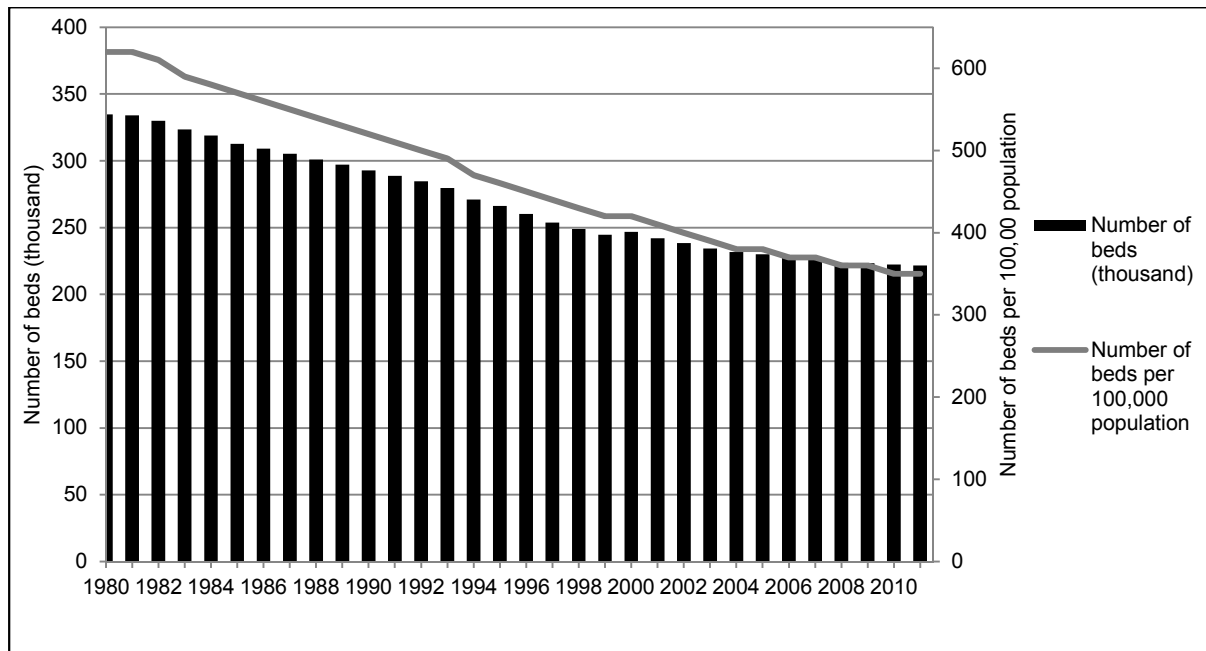


Figure 4 Trends in the number of hospital beds in France, 1980-2011

Source: Eco-Santé (2014) [51]

The downward trend for the number of beds across all hospitals conceals variation between the different types of hospital and at different periods of time. Figure 5 presents growth pattern for the public, private not-for-profit and private for-profit hospitals. It shows that the number of beds in public and private not-for-profit hospitals has steadily fallen over time; conversely, private for-profit hospitals saw increases in the number of beds from 2004. For example, during 2006–2011, the number of beds in public hospitals fell by 33,327 compared with 783 in the private sector.[91 96-100]

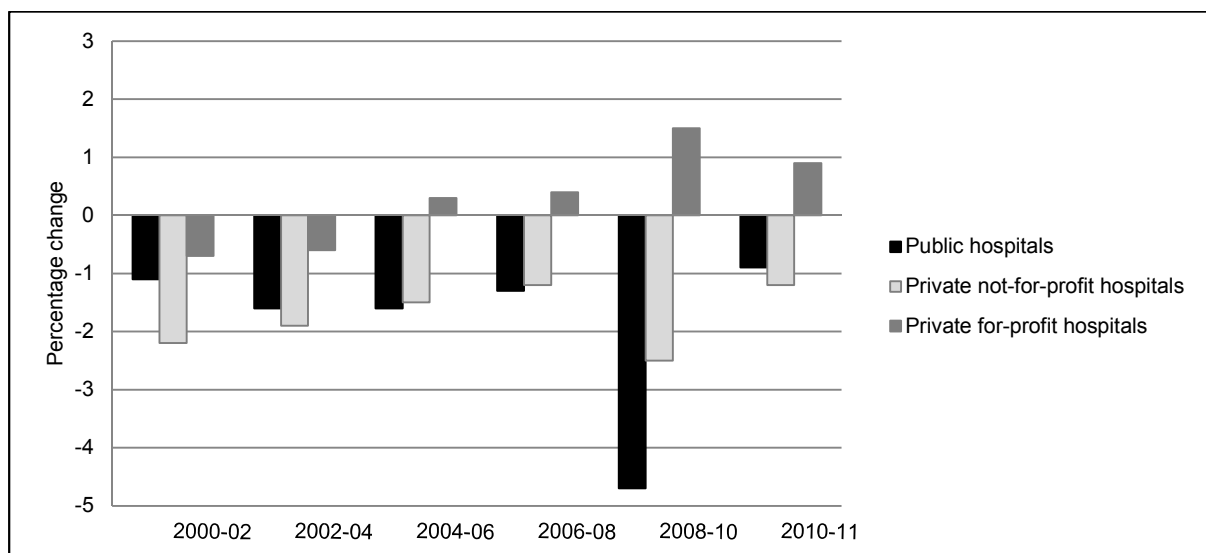


Figure 5 Evolution of the number of inpatient beds (average annual growth rate), 2000–2011

Source: IRDES (2013)[90]

Figure 6 presents the number and proportion of hospital beds by ownership over a ten-year period. It shows that despite experiencing a greater fall in number of beds, public hospitals have maintained their market share over time at about 65 per cent of all hospital beds.

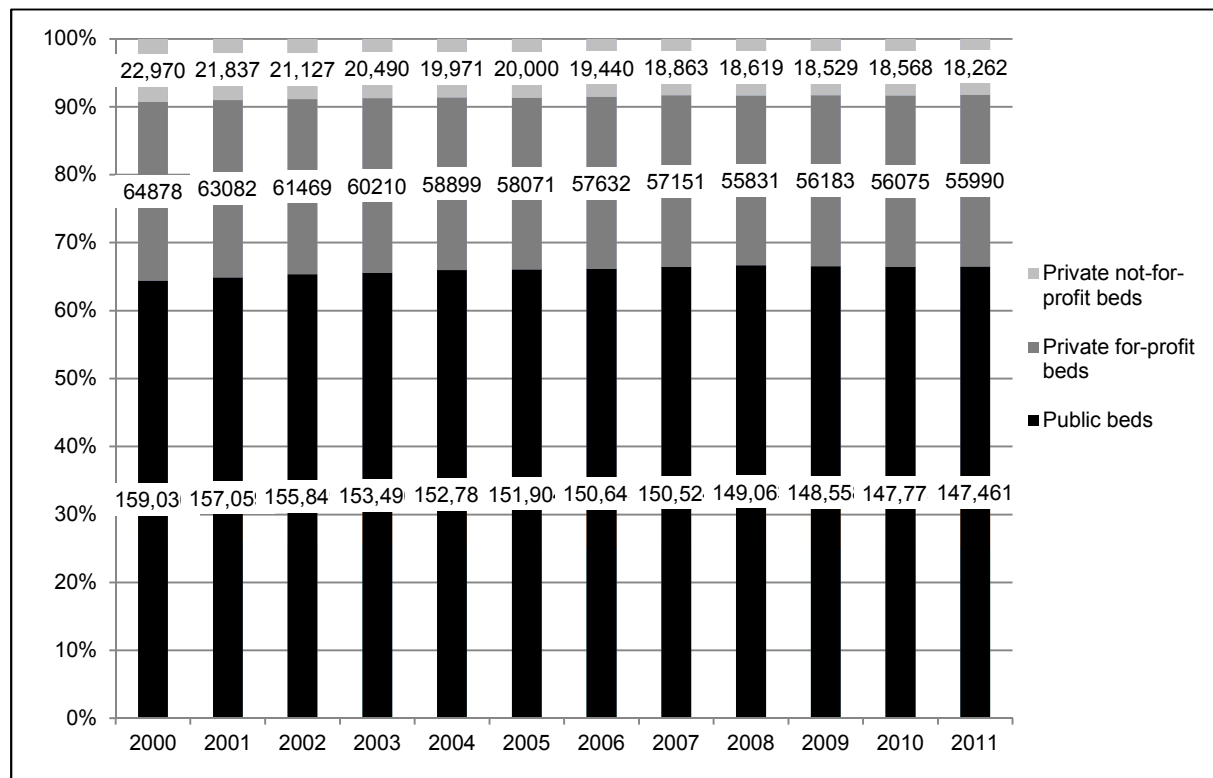


Figure 6 Number and proportion (%) of hospital beds by ownership, 2000–2011

Source: Eco-Santé (2014) [51]

Figure 7 shows bed occupancy in the three types of hospitals over the period 2000–2011. It shows that occupancy rates have increased in public and private not-for-profit hospitals (from respectively 75 and 70.5 per cent in 2000 to 79.2 and 72.3 in 2011) but have fallen in private for-profit hospitals (from 76.7 per cent to 63.9 per cent).[51] The overall occupancy rate in 2011 was 74.8 per cent.

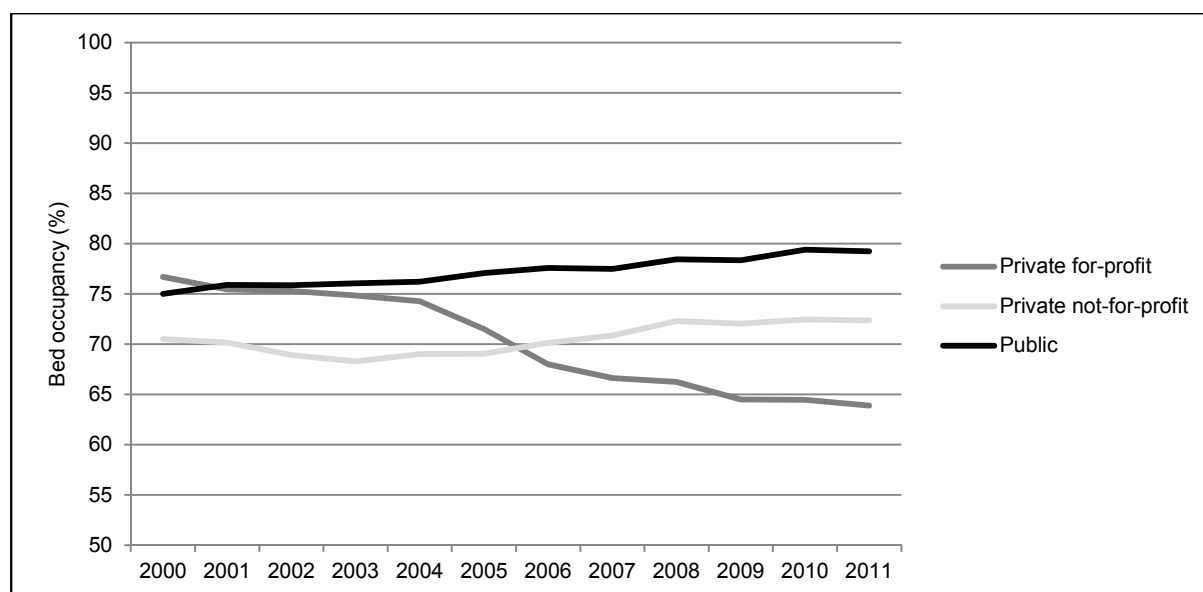


Figure 7 Trends in bed occupancy in hospitals by ownership, 2000–2011

Source: Eco-Santé (2014).[51] Authors’ own calculations.

Hospital groups

There are two main types of hospital groups in France: those led by university hospitals (CHUs) in the public sector and commercial for-profit groups, often referred to as hospital chains in the private sector. In 2013, there were 32 public hospital groups,[101] and about 50 private groups.[67] Table 8 presents the three largest groups by number of hospitals in each category.

Table 8 The three largest public and private for-profit hospital groups in France, by number of hospitals, 2014

Public hospital groups	Private for-profit hospital groups
Assistance Publique-Hôpitaux de Paris (37)	Générale de Santé (75)
Hospices Civils de Lyon (14)	Vitalia (45)
Assistance Publique-Hôpitaux de Marseille (4)	Médi-Partenaires (35)

Source: AH-AP (2014)[102]; Hospices Civils de Lyon (2014)[103 104]; Assistance Publique-Hôpitaux de Marseille (2014)[105]; Générale de Santé (2014)[106]; Vitalia (2014)[107]; Médi-Partenaires (2014)[108]

CHU groups

CHU groups are hospital groups benefiting from a close affiliation to a medical school.[109] They provide residency and fellowship training programmes and pursue clinical research. They have a strong focus on medical innovation and research and benefit from a reputation of excellence. CHUs patent about 235 innovations a year on average.[110]

In 2014, the 32 university hospital groups led by individual CHUs comprised over 200 hospitals, 3,000 hospital departments, and about 90,000 beds.[110] CHU groups are estimated to account for around one third of all hospital activity and to employ one third of hospital staff.[110]

In recent years, CHU groups have benefited from the introduction of activity-based funding (see below) and have seen increases in their market share with number of patients growing faster than the population (between 2005 and 2009, the number of patients treated in CHUs grew by 1.1 per cent while the general population increased by 0.54 per cent).[111]

Similar to other types of hospitals, CHU groups are facing the challenge to increase efficiency in a context of scarce resources and competition for patients. There is a perception that smaller hospitals within a group can benefit from the expertise of large teaching hospitals (IntFR01), and the group structure allows to share some of the logistical aspects and to streamline some processes (see for example AP-HP below).

Private hospital groups and chains

Private hospital groups and chains started to develop from the mid-1980s,[58] and in 2013, there were around 50 such groups or chains. About 60 per cent of private hospitals belong to a group, which represents 30 per cent of bed capacity in the private for-profit sector. The majority of groups are located in a single region, owned by physicians, and comprise a small number of facilities. There is a small number of larger groups and chains, such as Générale de Santé (see below) and the fast growing Vitalia group,[58] which operate facilities across the country, have implemented a regional or national strategy and provide a wide range of services, from acute care to rehabilitation services.

As indicated above, growth rates for the private for-profit sector in acute facilities have fallen between 2005 and 2010, from 4.1 per cent to 2.9 per cent.[58] During the same period, private for-profit hospitals have lost some market shares to public and not-for-profit hospitals which has led to some restructuration and consolidation processes. Overall, profitability has remained low in recent years (1.3 per cent in 2012 for acute care activities, the least profitable activity for the private for-profit sector),[112] partly due to stagnation of tariffs compared with an increase in costs.[58]

3.2.2. Planning of hospital capacity

Responsibility for hospital capacity planning is shared by the Ministry of Health at the national level and the ARSs at the regional level.[33] Planning is based on volumes (such as the number of procedures, hospital stays, etc.) rather than on a bed/population ratio in order to reduce oversupply.[57] ARSs, on the basis of the regional health scheme for healthcare organisation (PRSs), establish target agreements with hospitals to define services, volumes, and responsibilities of each hospital in the area, so that population needs are covered.[5]

One of the primary objectives of the PRSs is to increase the efficiency of health service delivery through the promotion of best practices and reduction of inefficiencies and systemic misuse.[113] To achieve this objective, ARSs and hospitals are supported by a dedicated national agency, the National agency to support efficiency in hospitals and other health organisations (Agence Nationale d'Appui à la Performance des établissements de santé et médico-sociaux; ANAP).[114]

Overall, geographical access to hospital care is good, with 94.7 per cent of the population able to access to emergency care within 30 minutes from their home, and 95 per cent to regular elective care within 45 minutes of their home.[64] But recently concerns have emerged over accessibility in terms of costs, with

private for-profit hospitals increasingly charging services beyond statutory tariff, which, in 2011, increased to €1.1 billion.[64] This constituted a 50 per cent increase compared to 2005, while all hospital billings (within and beyond statutory tariffs) rose by 30 per cent increase in the same period. The regional health agencies (ARSs) are responsible for ensuring access to affordable care, in both the public in private sectors. For example, where a private for-profit hospital holds the monopoly of service provision, the ARS can require that access to care within the statutory tariffs is granted to all patients accessing the hospital through the emergency department.[58] In practice, the influence of ARSs on the private sector may be more limited:

The ARSs are supposed to coordinate the private and public supply, but this is not an easy task, and a private hospital which wants to close down services because they are not profitable can do so. (IntFR01)

3.2.3. Financing of hospital care

Public funding (government and SHI) represented 93.2 per cent of hospital care funding in 2012. Services are reimbursed by the SHI provided that they are authorised by the Ministry of Health, including both public and private providers (not-for-profit and for-profit).[5] Since 1996, the level of funding available to the SHI for health (including hospital care), the ONDAM, is decided annually by Parliament.[115] The share of private funding, including out-of-pocket payments and private health insurance, has slightly increased since 1995, from 5.1 per cent to 6.8 per cent in 2012.[5]

Since 2004, hospital care is mainly financed through activity tariffs (T2A) based on diagnosis-related groups (DRGs).[10] The French DRGs (Groupes Homogènes de Malades; GHMs) were introduced in 1986 in some public hospitals on a voluntary basis to better describe hospital activity. Since 2004, GHMs are mandatory in all hospitals (public and private) and associated with activity tariffs. The current version of GHMs (version 11) comprises over 2,000 categories and takes into account a range of variables, including information on length of stay, secondary diagnoses and old age. DRG-based T2A has the following objectives: to improve efficiency; to create a 'level playing field' for payments to public and private hospitals; to improve the transparency of hospital activity and management; and to improve quality of care.[7] By setting up tariffs that remunerate hospitals' activity (e.g. surgical procedures, medical treatment) T2A does not encourage collaboration between hospitals but increase in activity in each hospital,[64] sometimes even encouraging providers to perform unnecessary procedures or mis-coding a given procedure.[10] Early evaluations of the T2A system did not show an increase in efficiency, and a certain lack of transparency with regard to levels of tariffs was a concern.[24 64]

However a 2014 study showed that the introduction of T2A has made the public hospitals more competitive,[116] encouraging better management and more efficient processes, and accelerating the development of information systems (public hospitals used to receive an annual budget not based on activity).

This system has been very beneficial to public hospitals. It has probably saved them. It has reversed the trend. (IntFR01)

T2A has made the funding of private and public hospitals more similar but some differences remain.[64] For example, tariffs tend to be higher for the public sector as they include salaries of the physicians, as well

as provision for public interest mission such as continuity of care.[117] However these differences do not prevent the private hospital federation to lobby for equal tariffs across all hospitals.[118]

3.2.4. Regulatory oversight

Quality of hospital care is overseen and promoted by the Ministry of Health and is regulated by a number of national bodies. They include the High Health Authority (HAS),[119] in charge of accreditation, and the National agency for safety of drugs and medical devices (Agence Nationale de Sécurité du Médicament et des produits de santé; ANSM).[120] Both agencies work closely with the ARSs.

Initially, accreditation was a private and voluntary procedure[121] but it evolved into a national mandatory process overseeing registration of all hospitals. It was initially introduced in 1996.[33] From 2004, the HAS has been in charge of the accreditation of hospitals, or ‘certification’, which comprises an assessment of the quality of care and processes developed by hospitals to sustain quality improvement. The certification process includes two main components: an auto-evaluation performed by the hospitals against a set of criteria, and a certification visit by independent experts trained by the HAS. Hospitals have to undergo the certification process every four years.[122]

It is only recently that France has formally adopted quality indicators for monitoring care quality in hospitals.[123] The HAS in charge of promoting the list of indicators and ensuring that they are used.[64] The list includes indicators to measure efficiency and quality of care, including patient experience.

To some extent, T2A tariffs can contribute to the standardisation of quality of care. Indeed they can be used to incentivise or disincentive a type of care (e.g. lower tariffs for caesarean procedures which were too numerous, in the private sector in particular). However, they are not considered as the best tool to monitor quality (e.g. tariffs do not distinguish between relevant and non-relevant caesareans).[64]

For the specific case of cancer care, standard setting and quality of care monitoring are the responsibility of the National Cancer Institute (INCa).[33]

3.3. Drivers and challenges

As indicated in preceding sections, the hospital sector in France has undergone considerable change during recent decades. Thus, the sector has seen a substantial fall in the number of hospital beds, which was accompanied by a decline in the average length of hospital stay and a simultaneous increase in the volume of inpatient cases. At the same time, there was an overall trend towards concentration and consolidation in the sector, through hospital mergers and closures from the 1990s,[124] alongside the formation of hospital groups in the private and public sectors.[33] The key drivers behind these changes include a combination of factors, some of which are common to the whole sector whilst others are more relevant to either public or private hospitals. For example, some of the observed closures have been linked to the introduction of the accreditation process (Section 3.2.4), with many hospitals anticipating the process and transforming acute hospitals into long-term care facilities or evolving within profit-making mergers.[33] Also, the 2009 health reform sought to promote collaboration among hospitals to enhance

care efficiency. This has led to the reorganisation of some hospital groups such as the Paris region hospital group as described below.

Also, the introduction of activity tariffs may have had an influence on the restructuring of public hospitals, encouraging high volumes of activity and possibly making it more challenging for smaller hospitals to achieve financial sustainability.[64]

The field of obstetrics is an area where there has been considerable activity over the years seeking to reduce the number of maternity hospitals and wards,[125] in order to enhance the safety and efficiency of reproductive care.[67] In 1998, a decree on the technical requirements for maternity hospitals created three categories, distinguishing between type 1 facilities, which provide obstetrics services only; type 2 facilities providing obstetrics and neonatology services; and type 3 facilities providing obstetrics, neonatology and neonatal reanimation services.[126] All facilities that performed fewer than 300 deliveries per year were required to close or merge, bringing the total number of maternity hospitals and wards from 679 to 535 between 2001 and 2010 (starting from 1,370 in 1975).[67] The number of type 1 hospitals and wards has fallen by one third, while the number of type 2 and type 3 maternity hospitals has slightly increased. Type 3 maternity hospitals performed in 2010 about one quarter of all deliveries compared with one fifth in 2001. Some commentators have observed that such a process of consolidation would be equally beneficial in surgery and medical services more broadly, with a comparatively high number of small facilities with low volumes of activity.[58] (IntFr01)

In the private sector, consolidation observed from the 1990s has been linked to the increasing financial participation of investment funds in hospital groups, replacing, to some extent, physicians as main shareholders.[58] In this context it is worth noting that most of the mergers in the public sector led to a decrease in the number of beds available while in the private sector mergers often translated in increased bed capacity.[58]

One of the main challenges that hospitals are facing at present is the limited availability of financial resources. Since 2010, resources available to the SHI and ARSs through the ONDAM have remained low, increasing by less than three per cent each year. This translated into a stagnation of the activity tariffs.[64]

3.4. Hospital groups: Assistance Publique-Hôpitaux de Paris (AP-HP) and Générale de Santé

This section seeks to provide insight into hospital groups in France. We selected the largest groups in the public and private for-profit sectors, these are respectively Assistance Publique-Hôpitaux de Paris (AP-HP) and Générale de Santé. We first present an overview of the main indicators for the two groups (Table 9) and then examine each hospital group in further detail. The information presented here is drawn from publicly available materials only and the depth and breadth of data that were available varied between the two hospital groups.

Table 9 Key indicators of Assistance Publique-Hôpitaux de Paris (AP-HP) and Générale de Santé, 2013

	AP-HP (Public)	Générale de Santé (Private for-profit)
Financial turnover	6.7 billion	1,9 billion
Number of hospitals (all categories)	37	75
Number of birth in maternity units (per year)	38,000	31,250 (2012)
Number of beds (all categories)	20,852	15,307
Acute care beds	11,791	-
Number of cases (per year)	7 million	1.2 million
Number of emergencies (per year)	1.1 million	400,000
% ambulatory surgery	24% (2012)	23.8% (2012)
Number of staff	92,000	23,500
Number of trainees (medical students)	About 3,000	40 (2013)
Market share	10% of hospital care in France	16% of private hospital care in France

Source: AP-HP (2013) [21]; AP-HP (2014)[102]; Générale de Santé (2014)[22]; Générale de Santé (2014)[106]

3.4.1. Assistance Publique-Hôpitaux de Paris (AP-HP)

Assistance Publique-Hôpitaux de Paris describes itself as the teaching hospital group of the Paris region and the first university hospital group in Europe. In 2012, AP-HP reported an annual patient volume of seven million. It employed over 92,000 staff, and provided about 10 per cent of hospital care in France.[21]

Number and type of facilities

The AP-HP group brings together 37 hospitals, gathered into 12 smaller sub-groups.[102] The 12 sub-groups comprise hospitals in the same geographic area.

AP-HP principally serves a local population, with 95 per cent of the patients from Paris and its surroundings. AP-HP represents 30 per cent of hospital care in the Paris region. Hospitals in the AP-HP group offer a wide range of services including highly specialised care (e.g. AP-HP carry out 1,200 transplants per year) and diagnostic and other equipment; for example, in 2013, AP-HP had available 34 MRI scanners, 8 PET scanners, 36 gamma cameras, and 3 surgical robots.[128] Each sub-group provides three levels of care: emergency and acute care, integrated care (obesity, oncology, and geriatrics across facilities, from diagnosis to rehabilitation), and highly specialised care.[129]

In 2011, AP-HP trained 3,000 medical trainees and 13,000 students (medicine and allied health services).[21] The AP-HP is linked to seven medical schools, two dental schools, two pharmacy schools, and 27 nursing schools and allied health services schools.

Medical schools and hospital sub-groups collaborate closely and together define directions for research.[21] Thus, AP-HP participates in national and European clinical research.[130] The AP-HP describes itself as a European leader in clinical trials with over 20,000 patients each year in ongoing trials. It is estimated that researchers at AP-HP produce 40 per cent of all papers published by researchers at French hospitals.

AP-HP most recent strategic plan (2010–2014) highlighted four main area of development: improving patient pathways; optimising capacity and coordination of services; improving patient experience and optimising financial resources.[129] A new strategic plan for the period 2015–2019 is currently under development; it seeks to retain the same objectives, with the addition of making the AP-HP a leader in term of medical innovation and technological revolution, in partnership with universities.[131]

Mission

The core mission of the AP-HP as described in their 2012 annual report is threefold: to deliver care for the residents of the Paris region, from emergency care to highly specialised care; to participate in medical and health education and training; to be at the forefront of medical research.[21] The aim of AP-HP is to improve governance, enhance visibility of services for the population, offer a comprehensive range of services at the local level, and better coordinate research and teaching missions.[132] The sub-groups are expected to improve the performance of the institution through increased efficiency, larger market shares and harmonisation of medical activities.[130]

Some of the relationships between facilities within the group are historical but the 12-sub-group structure was only created in 2009. This reconfiguration aligned with the national health reform that same year, which sought to ‘modernise’ the public hospital sector and increase their performance and efficiency.[130]

Origins and evolution over time

The oldest hospital in the AP-HP, the Hôtel-Dieu, was founded in the 7th century and administered by nuns in the centre of Paris.[133] Driven by a tradition of Catholic philanthropy, several sites developed over the centuries with a mission to care for those who were unable to afford to pay for their care and to provide a home for the terminally ill. It was only at the beginning of the 19th century that the *Assistance Publique* (AP) became more secular and engaged its hospitals in a mission of medical education and research, starting to attract the best scientists and doctors of the time. The first half of the 20th century was an area of modernisation, with the creation of new hospitals and hospital units. From 1941, services offered by the AP were made available to the resident population, which was expected to contribute to accelerate medical progress and improve health services, as from then on the AP was competing with private organisations for patients who can afford to pay. In the second half the 20th century, the AP progressively moved towards the AP-HP structure.

Ownership and governance model

As a public hospital, the governance structure of the AP-HP is defined by law, and key governance features include the director and the surveillance committee.[133] The director is appointed by the government, and s/he directs the AP-HP together with eight other members .[102] Their activities are overseen by the surveillance council which comprises representative from local governments, staff representatives, and relevant experts (in medicine, finance or economics). The vice-president of the management group is also the president of the Medical Commission (Commission Médicale d’Etablissement). The Medical Commission is a consultative medical committee representing physicians, odontologists and other staff and giving advice on the group’s strategy. The commission’s focus is on care quality and safety.[133] Other commissions and committees make recommendations on specific topics. They include the Technical Committee, the Nursing and Rehabilitation Commission, the Hygiene and Working Conditions Committee and a Commission for care quality and safety.

Compared with other public hospitals, a key feature of the AP-HP is that governance operates at two levels: the central level and the local (at each hospital or sub-group) level.[133] The same administrative structure described above is replicated at the sub-group level.

Each of the 12 sub-groups benefits from a certain degree of autonomy, as each sub-group is responsible for defining its ‘trajectory’ and levels of activity, and for doing so within budget.

In addition, AP-HP operates a set of centralised services[134]:

- Procurement services for non-medical goods and services (Achats Centraux Hôteliers Alimentaires et Technologiques)
- Ambulance services
- Laundry services
- Safety and maintenance services
- Procurement of pharmaceuticals and medical equipment, management of clinical trials, research development and production of orphan drugs (Agence générale des équipements et produits de santé)

In 2009–2011, AP-HP invested in the development and implementation of an information system to improve finance management and procurement.[21] Currently, the group is investing in an information system to manage patient data. The system will include all aspects of patient data, i.e. prescriptions, patient data, administrative data, etc.[21]

As with other public hospitals, the AP-HP is under the external scrutiny of the ARS director who is in charge of controlling the functioning of the group, in particular the decisions made by the director and the surveillance committee.[133] The ARS authorises the various types of care, based on the plans for the organisation of care at the regional level.

Financial turnover

In 2013, the annual budget of the AP-HP was around €6.7 billion.[21] Seventy-five per cent of the budget comes from the SHI, with the remainder from out-of-pocket payments and voluntary insurance payments. The main source of spending salaries, which represented 62 per cent of spending in 2010.[133] During the past decade, the AP-HP experienced financial pressures with large annual deficits. This has improved in recent years, following the implementation of the new governance structure in 2009 and interventions that focused on timely invoicing and accurate coding of activity to improve finances. The AP-HP has also recently sold agricultural land and non-medical buildings. Efforts have led to a reduction of the group deficit (Table 10 AP-HP deficit, 2010–2012).

Table 10 AP-HP deficit, 2010–2012

	2010	2011	2012
Reported deficit	-103 million (€)	-72 million (€)	-20million (€)

Note: AP-HPs total budget of the AP-HP is about 7 billion annually.

Source: AP-HP (2013)[21]

3.4.2. Générale de Santé

Générale de Santé (GdS) is the largest private for-profit hospital group in France.[135] Its activity accounts for 16 per cent of private hospital care and it employs 23,500 staff. It describes itself as among the main recruiters in France.

Number and type of facilities

With its 75 hospitals, GdS offers a wide range of services, from emergency services (e.g. in some areas like Annemasse, the group is the only emergency care provider) and diagnostic activities to rehabilitation services. GdS operates facilities across the country, with most facilities located in the North, in Paris, and on the Bourgogne-Provence axis.

GdS provides the same volume of maternity services as AP-HP in its 18 maternity units and in 2012, GdS provided care for 862,000 patients in MCO hospitals. GdS reports to be the main provider of cancer care in the private for-profit sector with four cancer institutes and 14 hospitals providing cancer services.[106]

The group employs around 19,000 salaried staff and works with an additional 4,500 self-employed physicians who offer clinics in the hospitals and how provide a share of their remuneration to the group.

Mission

Générale de Santé describes itself as having a commitment to care quality and organisational efficiency.[136] The group strategy for 2015 includes a greater involvement of practitioners in the group management, and a greater responsiveness of the group to the patients' needs (e.g. physical activity centre, improving patient experience through marketing activities). The strategy is therefore less focused on increasing volumes of activity than on increasing efficiency.[22] GdS states that it contributes to the public service mission, with a commitment to not select patients and to contribute to the appropriate distribution of healthcare facilities across the country.[136]

Since 2008, GdS established the Foundation Générale de Santé for biomedical research.[22] One of its main activities has been to develop an approach for the collection of stem cells in umbilical cords, which involved a partnership with AP-HP by means of 24 agreements with relevant research units. GdS is also increasingly investing in teaching. In 2012, GdS trained 14 medical trainees and the group anticipates training up to 40 residents in 2013.[22] This new activity was developed in partnership with a regional teaching hospital.

Origins and evolution over time

GdS was founded in 1987 by the Générale des Eaux with the aim to 'fill the gap of private hospitalisation in France' and offer an alternative to public hospital supply.[136] From 1988, GdS was offering a wide range of services, including acute medical care, psychiatry and rehabilitation. After a phase of expansion in Italy and in the United Kingdom, the group focused on consolidation in the 1990s. In 2001, GdS was listed on the stock market. In 2005 and 2006, GdS expanded again, acquiring hospitals in the Paris area and facilities in Italy. In 2007, Santé Développement Europe acquired 60 per cent of the group. Since then, GdS has not undergone any major change. During 2010–2012, GdS launched 14 new facilities in France, which France considered to be at the core of the group activities; at this point, the group had reduced its international operations to one facility in Italy. In December 2013, GdS sold its mental health activities and related after-care and rehabilitation services to Australian hospital chain Ramsay Healthcare, re-focusing its efforts on reconfiguration of its services with a focus on acute care and rehabilitation.[58]

GdS has concluded in June 2014 takeover negotiations with Ramsay Healthcare, which now holds 83.4% of GdS.[137]

Ownership and governance model

GdS is a joint stock company and operated by an administrative board responsible for devising its strategy and scope of activities; an executive committee, in charge of developing the strategy and implementing decisions; and two committees overseeing controlling activities and ensuring transparency.[22] They are supported by a consultative Medical Commission (Commission Médicale d'Établissement) representing physicians who advise on the group's strategy. Medical commissions also exist at the hospital level where they act as an advisory body to the hospital director. The company is owned by shareholders, with Santé Développement Europe holding 60 per cent of the company.

In order to consolidate market share and improve efficiency, the group strategy is currently oriented towards the development of a network and hubs structure, so working towards a greater centralisation of its operations.[22] This means that in each local area in which the company operates, GdS is setting up hubs (*pôles*) which seek to ensure coordination and integration of the care pathway. The first hubs to be set up are oncology hubs (e.g. in Lyon). Hospitals within the same hub can benefit from transfer of services, and coordination of medical teams. Hubs are intended to increase bed occupancy rates and to ensure complementarity of services across hospitals.[22] Strategic priorities are defined at the hub level in collaboration with local physicians.

According to the GdS reports, the group is currently not looking to expand and does not systematically engage in the acquisition of new hospitals when approached. In a recent interview, the current general director cited three guiding principles with regard to new investments: value culture, strategic coherence and financial interest.[58] This is accompanied by strong branding activity.

Financial turnover

GdS reports an annual turnover of about €1.9 billion. Table 11 presents turnover and profits from 2011 to 2013. Seven new institutions were opened in 2012, among them two MCO hospitals, but in 2013, GdS sold its mental health activities and related after care and rehabilitation services. On a like-for-like basis (i.e. based on the same number of hospitals), revenue grew by 1.3 per cent between 2012 and 2013. During the same period, debt was substantially reduced, from €769.1 million to €610.3 million.[138]

Table 11 Générale de Santé turnover and profits, 2011–2013

	2011	2012	2013
Turnover	1.955 billion(€)	1.93 billion (€)	1.87 billion (€)
Net income	-25.7 million (€)	59.3 million (€)	114.8 million (€)
Net earning per share	-0.5 (€)	0.99 (€)	1.97 (€)

Source: Générale de Santé (2014)[138]

4. Germany

4.1. Health system context

The German health system is financed mainly through statutory health insurance (SHI), which accounted for 68 per cent of total health expenditure in 2011, complemented by taxation (8.6 per cent) and private health insurance (about 10 per cent), and out-of-pocket payments (13 per cent).[30] Since 2009, all residents are required to take out health insurance. In 2011, approximately 87 per cent of the population were covered by SHI and 11 per cent by private health insurance; an estimated 0.5 per cent of the population was without insurance.[139] SHI contributions are income-dependent and shared between employer and employee. The contribution rate is determined at national level and currently set at 15.5 per cent of gross income; a draft bill under the new government seek to reduce this rate to 14.6 per cent from 2015.[140] Dependants are covered free of charge; those receiving social assistance or long-term unemployment benefits are covered by the state via the municipalities or the labour agency.

Regulation of the healthcare system is embedded in legislation, set out in Social Code Book V (Sozialgesetzbuch, SGBV), which defines the roles and responsibilities of all health system actors as they relate to SHI.[31] Governance is shared between the federal and 16 state governments. The Federal Ministry of Health is responsible for securing and maintaining the publicly financed health system while decisions on the implementation of the policy framework set by the legislator fall to Joint Federal Committee (Gemeinsamer Bundesausschuss, G-BA) as the highest decisionmaking body in the statutory health insurance system.[65] The G-BA is an independent public legal entity that is accountable to the ministry of health, it is composed of the federal association of statutory health insurance funds and the federal associations of healthcare providers (including physicians, dentists, psychotherapists and hospitals); patient representatives are involved in an advisory role. The G-BA issues directives on the services that are reimbursed under the SHI system and specifies measures for quality assurance and minimum standards in the ambulatory and hospital sector.

Under statutory health insurance, patients are entitled to access a comprehensive set of healthcare services, defined by law. Healthcare covered under SHI includes preventive services, ambulatory and hospital care, mental healthcare, dental care, optometry, physical therapy, prescription drugs, medical aids, rehabilitation, hospice and palliative care, and sick leave compensation. There are cost-sharing arrangements in place for selected services, including pharmaceuticals and dental care.

Individuals have (almost) free choice of SHI fund, with a risk compensation mechanism (Risikostrukturausgleich, RSA) introduced in 1994 to compensate for differences in populations insured

by different funds. Initially adjusted for age, sex and incapacity to work only, since 2009, SHI funds receive centrally allocated risk-adjusted contributions which are additionally based on morbidity.[141]

Healthcare services are provided by a mix of public and private providers. Ambulatory care (care outside hospital) is mainly provided by office-based primary and specialist care physicians ('SHI physicians'). Patients generally have free choice of any provider in the ambulatory care sector. Since 2007, SHI funds are legally required to offer GP-centred care plans (GP contracts), in which members agree to always seek care through their family physician first (although only about 20 per cent of patients have joined such a scheme[142]). All patients also have some choice of hospital upon referral. Hospitals are owned and operated by a variety of public, charitable/religious and private for-profit organisations.

Over one third of healthcare expenditure is spent on hospital care, followed by physician (family physicians and specialists) services in the ambulatory sector and pharmaceuticals (Figure 8).

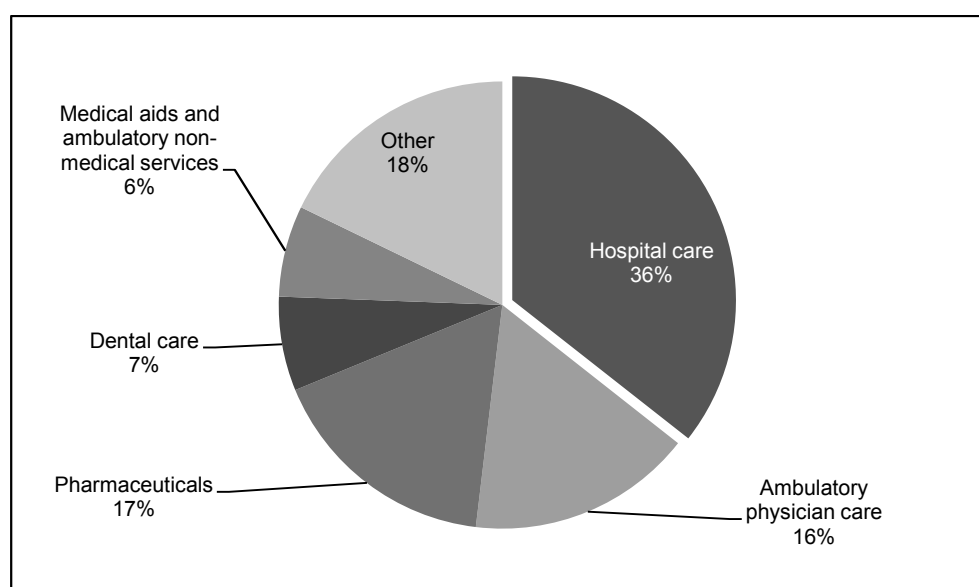


Figure 8 Health expenditure by category, 2012

Sources: Adapted from Bundesministerium für Gesundheit (2013)[139] and GKV Spitzenverband (2013)[143]

4.2. Organisation, financing and delivery of hospital care

Defining and categorising 'hospital'

The 1972 Hospital Financing Act (*Krankenhausfinanzierungsgesetz*) defines hospitals as 'facilities in which, through the provision of medical and nursing care, disease, suffering or physical injury may be diagnosed, cured or relieved or which provide obstetric care, and in which those who receive services can be accommodated and cared for'.[144]

Official statistics distinguish general hospitals from 'other' hospitals. General (or acute care) hospitals are defined as hospitals that provide inpatient beds that are not exclusively dedicated to psychiatric, neurological, or geriatric patients.[39] Accordingly, 'other' hospitals include those facilities that exclusively provide psychiatric, neurological, or geriatric beds, as well as day care or night clinics. Hospitals operated by the armed forces are typically reported separately.

Hospitals can be further distinguished according to their legal status (operated under public law or under private law), their ownership (public, private not-for-profit, private for-profit), the nature of their licence (with or without a SHI contract), number of beds, and number of clinical departments. For example, according to Social Code Book V, licenced hospitals include university hospitals, hospitals that are included in a given state's hospital plan (see below), and hospitals that hold a contract with the regional associations of SHI funds.

Considering legal status and ownership, the following forms are possible:[39]

- *Public hospitals*: these can be operated under public or private law
 - Public law: refers to hospitals that are legally, economically and organisationally dependent (for example owner-operated municipal entity), and those that are legally, economically and organisationally independent (for example, a public corporation).
 - Private law (e.g. as GmbH (limited company)): hospitals which form a legal entity and where administrative units (federal government, state government, regional or local government) or associations of these, or social insurance bodies hold, directly or indirectly, more than 50 per cent of the nominal capital or voting rights.
- *Private not-for-profit hospitals*: operated and owned by church-based, charitable or welfare organisations.
- *Private for-profit hospitals*: these are considered as business enterprises and require a licence under the industrial code.

When considering hospital ownership in Germany it is important to note that private, for-profit hospitals are included in service provision under the SHI system (see also below, Section 4.2.1).

Hospitals are also categorised by the number of clinical departments; this allows distinguishing hospitals according to the level of specialisation and differentiation of services within hospitals.

Number and size of hospitals by type

In 2012, there were a total of 2,017 hospitals; of these, just under 30 per cent were public, while 36 per cent were private not-for-profit and 35 per cent private for-profit (Figure 9).[39] However, although public hospitals only accounted for under one third of hospitals, they operated around half of all 501,500 inpatient beds (48 per cent). Private not-for-profit hospitals operated some 34 per cent and private for-profit hospitals 18 per cent of inpatient beds.

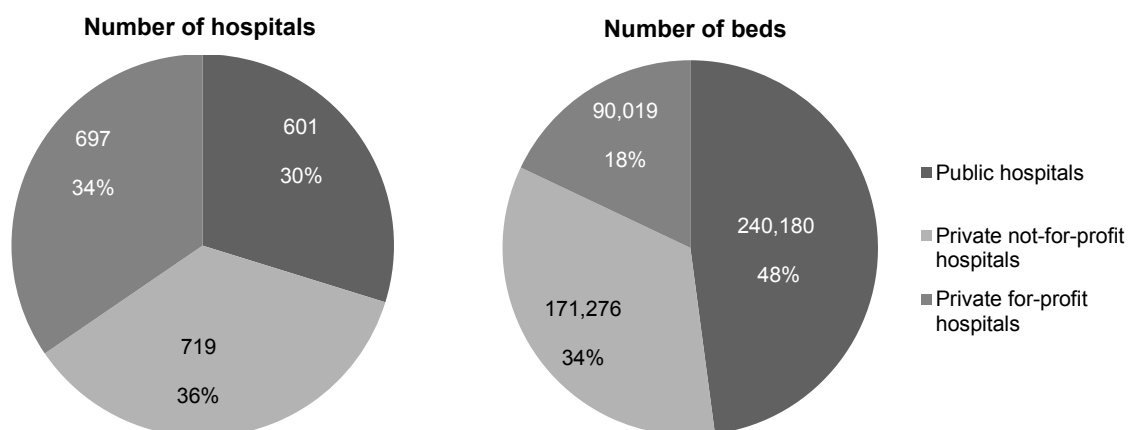


Figure 9 Number of hospitals by ownership, 2012

Source: Adapted from Statistisches Bundesamt (2013)[39]

Of a total of 2,017 hospitals, 84 per cent were acute care hospitals, and, of these, 34 were university hospitals, 1,392 hospitals that were included in a hospital plan ('Plankrankenhaus'), 79 hospitals that held a contract with the regional associations of SHI funds, and another 187 without such a contract.

Hospitals vary by size as measured by the number of beds and ownership status (Figure 10). Thus, in 2012, among acute care hospitals, the majority of private, for-profit hospitals had fewer than 100 beds, while public and private not-for-profit hospitals were more commonly medium-sized, with between 200 and 500 beds. The average number of beds in public hospitals (acute care and other hospitals) was 400, compared to 238 in private not-for-profit hospitals and 129 in private, for-profit hospitals.

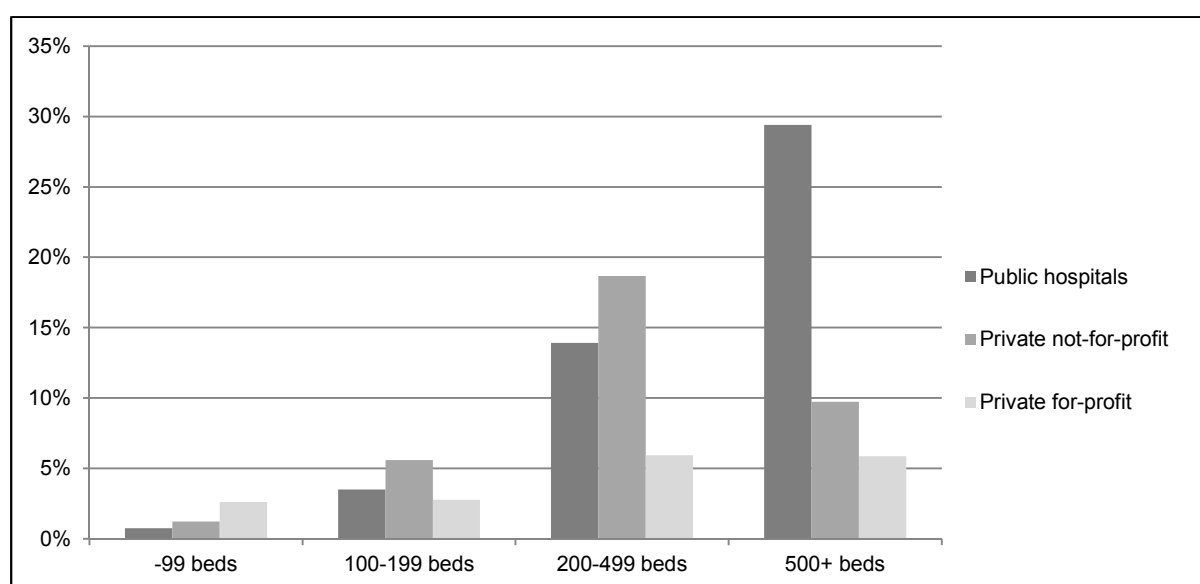


Figure 10 Number of hospitals by size (number of beds) and ownership, 2012

Source: Adapted from Statistisches Bundesamt (2013)[39]

Table 12 shows the number of full-time medical and non-medical staff working in hospitals in 2012, by ownership status, with the ratio of staff to the number of beds included. This shows that the number of medical and non-medical staff per available bed tends to be higher in private not-for-profit and for-profit hospitals compared to public hospitals.

Table 12 Full-time hospital staff in hospitals in Germany, 2012

	Public	Private not-for-profit	Private for-profit
Medical staff	79,099	41,865	21,910
Non-medical staff	380,339	209,976	104,557
Nursing staff	162,042	101,123	50,314
All	459,438	251,841	126,467
<i>Number of beds</i>	<i>240,180</i>	<i>171,276</i>	<i>90,019</i>
<i>Ratio beds-medical staff</i>	<i>3.04</i>	<i>4.09</i>	<i>4.11</i>
<i>Ratio beds-nursing staff</i>	<i>1.48</i>	<i>1.69</i>	<i>1.79</i>

Source: Adapted from Statistisches Bundesamt (2013)[39]

Trends in the number of hospitals and hospital beds

Figure 11 provides an overview of long-term trends in some of the key indicators of hospital capacity over a period of 20 years. This shows that, between 1991 and 2012, the number of hospitals had declined by 16 per cent, while the number of beds fell by one quarter.[39] At the same time, average length of stay also declined, but did so more rapidly, from 14 days in 1991 to 7.6 days in 2012 (46 per cent). As a result, bed occupancy rates fell, from just under 82 per cent in 1991 to 77.4 per cent in 2012. These changes occurred against an increase in the number of inpatient cases, by some 25 per cent during the same period.

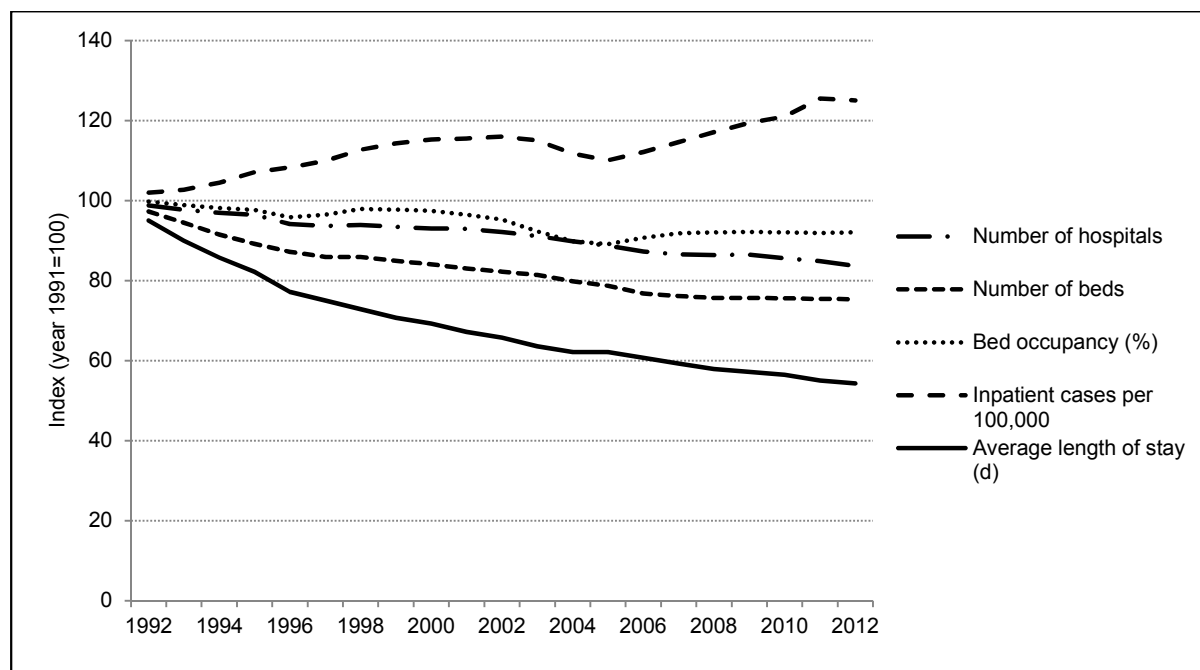


Figure 11 Trends in key indicators of hospitals in Germany, 1991–2012

Source: Adapted from Statistisches Bundesamt (2013)[39]

The decline in the number of beds over time is further illustrated in Figure 12, showing how much of the decline occurred during the 1990s into the mid-2000s, with relatively little change thereafter.

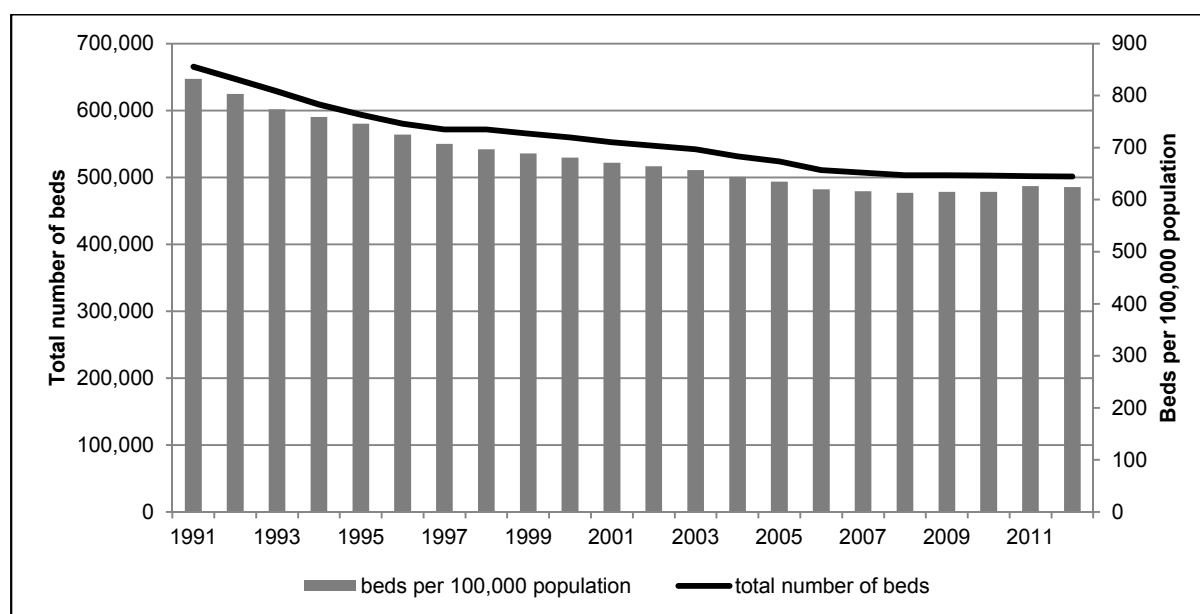


Figure 12 Trends in the number of hospital beds in Germany, 1991–2012

Source: Adapted from Statistisches Bundesamt (2013)[39]

As the number of hospitals changed so did its composition by ownership. In 1991 the proportion of private, for-profit hospitals was 15 per cent, rising to 35 per cent in 2012; during the same time, the proportion of public hospitals fell from 46 per cent to 30 per cent (Figure 13). The proportion of private not-for-profit hospitals remained stable, at around one third of all hospitals.

Public hospitals have retained their importance in terms of the number of inpatient beds and inpatient cases, although these figures have also fallen, from 54.5 per cent in the number of all inpatient beds in 2002 to 47.9 per cent in 2012 (a fall of 6.6 percentage points).[39] Conversely, among private for-profit hospitals, the share of hospital inpatient beds rose from 8.9 per cent to 18 per cent during the same period (an increase of 9.1 percentage points). Regarding inpatient cases, the share of public hospitals fell from 55.3 per cent to 48.8 per cent, while for private for-profit hospitals, the share increased from 8.2 per cent to 16.8 per cent.[39 57] Again, there was little change among private not-for-profit hospitals, with shares of inpatient beds and inpatient cases around 34–35 per cent throughout the period 2002–2012.

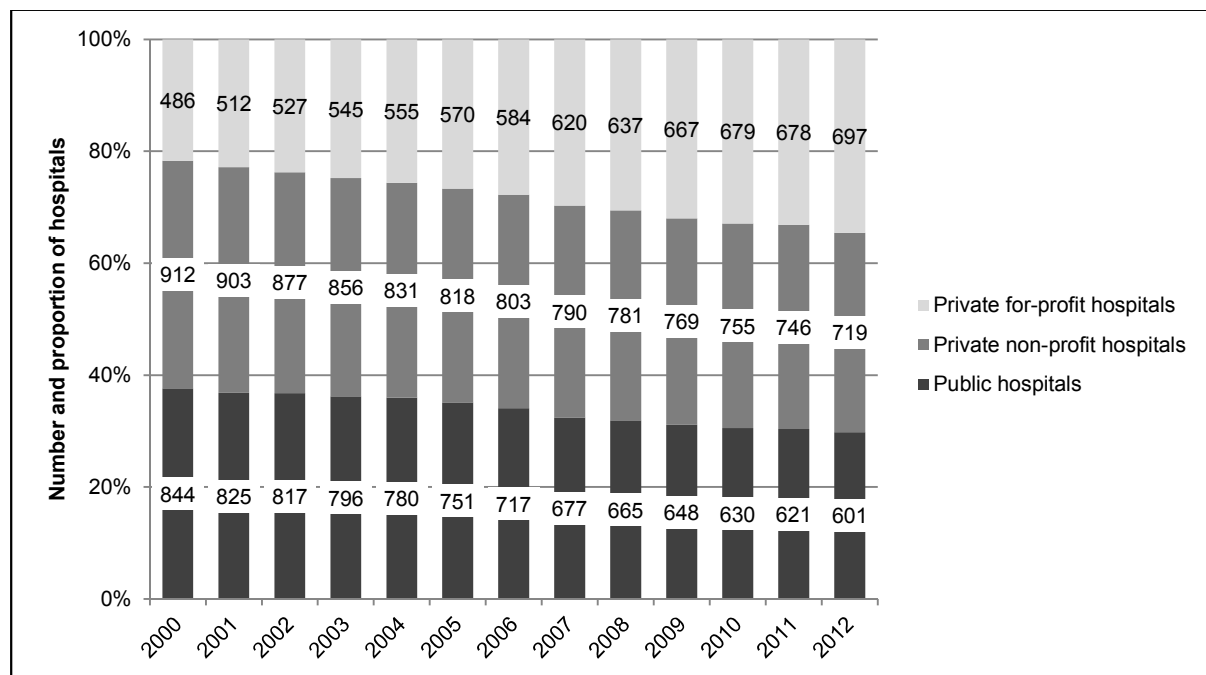


Figure 13 Number and proportion (%) of hospitals by ownership, 2000–2012

Source: Adapted from Statistisches Bundesamt (2013)[39]

There were also considerable changes within the category of public hospitals, which saw a rise in the proportion of those that are governed under private law, such as a limited company, from 28 per cent in 2002 to 59 per cent in 2012.[39]

In 2012, average bed occupancy rates in acute care hospitals tended to be higher in public hospitals, at 77.5 per cent compared to 73.8 per cent in private hospitals. However, average length of stay does not appear to differ between hospitals according to ownership (at 7.1 days in acute care hospitals in 2012).

Hospital groups

In addition to the aforementioned penetration of the private, for-profit sector into the German hospital market, there has been a trend towards cooperation and consolidation of hospitals, through the creation of hospital partnerships or groups or the actual mergers into a single enterprise. A 2007 survey of hospitals found that nine per cent had entered into mergers since the introduction of activity-based hospital financing using DRGs in 2004 (see below), with another 13 per cent considering mergers at the time of the survey.[145] A follow-up survey in 2010 showed a continuation of the trend, with 16 per cent of hospitals reporting having merged since 2004; mergers tended to be more common among larger hospitals, with 300 and more beds.

Currently, more than 60 per cent of hospitals are part of hospital partnerships or groups that include at least two hospitals.[57] A recent analysis of 65 large hospital enterprises or groups observed a considerable growth in their market share, from 25 per cent in 2005 to 31 per cent in 2011, and this growth was particularly pronounced among private for-profit hospitals.[57] Data on the nature and scope of different types of hospital groups in Germany are currently not collected at the national level (IntD02); data that are available tends to be subscription only, producing ‘ranking’ reports of the leading hospital groups in the different sectors.[103 146] Based on such data, Augurzky and Beivers (2014) showed that between 2003 and 2011, there were over 750 changes in ownership in the German hospital sector, of which 55 per cent occurred within the same ownership type (i.e. public, private not-for-profit or private for-profit), followed by 17 per cent changing from public to private for-profit status, and 8 per cent from private not-for-profit to for-profit.[145]

Drawing on an annual ranking of the largest hospital enterprises, by bed count, in the public, private not-for-profit and private for-profit sectors, Table 13 provides an overview of selected indicators of the five largest groups in each category.[23 25 147] The majority of groups listed provide services in a range of sectors, including acute hospital care, rehabilitation services, long-term and nursing home care, psychiatry and hospice care, alongside day care centres, home care services, or medical care centres, and the ranking is based on the combined number of inpatient beds in all relevant sectors. Thus, hospital groups shown in Table 13 are not necessarily the largest as it concerns inpatient beds in the acute hospital care sector.

Table 13 Selected indicators of the five largest public, private not-for-profit and for-profit hospital groups, by bed count, in Germany, 2012

Name	Legal form	Total number of facilities with beds *	Total number of beds	Number of acute care hospitals	Number of acute care hospital beds	Geographical reach
Public hospitals **						
Vivantes Netzwerk für Gesundheit GmbH [148]	Limited company	42	7,065	9	5,368	1 state (Berlin)
LWL Psychiatrieverbund Westfalen [149] ***	Public corporation	28	6,503	15	~3,000	1 state (North-Rhine Westphalia, NRW)
Landschaftsverband	Public	10	6,200	10	6,098	1 state (NRW)

Name	Legal form	Total number of facilities with beds *	Total number of beds	Number of acute care hospitals	Number of acute care hospital beds	Geographical reach
Rheinland [150] ***	corporation					
Städtisches Klinikum München GmbH [151]	Limited company	5	3,617	5	3,356	Munich
Klinikum Region Hannover GmbH [152]	Limited company	12	3,388	12	3,336	1 state (Lower Saxony)
Private not-for-profit hospitals						
Johanniter [153]	GmbH Limited company	100	10,335	9	2,403	6 states (north)
Agaplesion gAG [24]	Not-for-profit joint stock company	90	9,400	29	6,400	8 states
Marienhäuser [154]	GmbH Limited company	72	7,706	20	n/r	4 states (west)
St Franziskus-Stiftung Münster [155]	Foundation	26	4,949	13	4,031	2 states (NRW, Bremen)
Alexianer [127]	GmbH Limited company	>45	4,900	17	3,500	5 states (majority in NRW)
Private for-profit hospitals						
Asklepios Kliniken GmbH [156] ¥	Limited company	~140	26,594	55	n/r	all states (except Bremen)
Helios Kliniken GmbH [157] §	Limited company	109	23,286	56	17,900	most states
Rhön-Klinikum AG [158] ¶	Joint stock company	54	17,089	54	15,230	10 states
Sana Kliniken AG [159]	Joint stock company	61	9,678	49	n/r	10 states
Median Kliniken GmbH & Co. KG [160] #	Limited partnership with a limited liability company as general	43	9,000	5	680	2 states

Name	Legal form	Total number of facilities with beds *	Total number of beds	Number of acute care hospitals	Number of acute care hospital beds	Geographical reach
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partner

Notes: * beds include: acute inpatient, rehabilitation, nursing and long-term care, psychiatry, hospice; ** excludes two large public providers of medical rehabilitation services (Deutsche Rentenversicherung Bund with ~5,550 beds and Deutsche Rentenversicherung Knappschaft-Bahn-See with ~5,400 beds); *** adult and child/adolescent psychiatry only; † includes associated MediClin AG sites (part of Asklepios since 2012 which was the 5th largest private chain in 2011); § since 2005 owned by Fresenius AG (94% of shares); ¶ By the end of 2013, Rhön-Klinikum sold 40 of its clinics to Helios (Fresenius); # provider of rehabilitation services, acute inpatient beds in psychiatry and orthopaedics.

Source: compiled from A+S Aktuell 22/2013 [147], 2/2014 [25] and 21/2014 [23] and individual companies' sources as given in the table.

4.2.1. Planning of hospital capacity

In Germany, most planning of healthcare has been devolved to the regional level.[5] Ambulatory and hospital care are planned separately, with different processes and actors involved in each. The planning of ambulatory care is almost entirely based on negotiations between the regional associations of SHI funds and of SHI physicians, while hospital planning is the responsibility of the state governments, which share this task with regional and local authorities, regional associations of SHI funds, private insurers and hospitals.[53]

Federal legislation provides that hospital planning is a responsibility of the states. According to the aforementioned 1972 federal Hospital Financing Act each state has to secure the financial sustainability of all hospitals within its territory (i.e. those that are referred to in the hospital plan, see below) and to ensure that hospital care meets the needs of the population at affordable cost while respecting provider plurality.[9] The 1972 act also introduced the 'dual financing' principle in the acute hospital sector. This means that investment costs are financed at the state and federal level (through taxes) while operating costs are paid for by health insurance funds or private patients (who are typically reimbursed by private health insurers).[53]

Within the boundaries of federal legislation, state governments are required to develop regional legislation for the hospital sector and to devise a 'hospital plan', alongside investment programmes. Nature, scope and approach to planning may thus vary between the states. Also, the unit targeted by planning may differ, stretching from the number of institutions and departments and, in some states, down to determining the precise number of hospital beds to be provided.[53] Importantly, planning is closely associated with hospital financing and as such applies to all hospitals independent of their ownership or status (public, private not-for-profit and private for-profit). All hospitals that are included in a given state's hospital plan qualify for funding for long-term investments from the state government, such as investments in hospital buildings, maintenance and restructuring as well as investments into equipment. Inclusion in the plan is also a precondition for hospitals to qualify for reimbursement through SHI.

In 2009, the Hospital Financing Reform Act introduced a fixed annual allowance (*pauschale Investitionsförderung*) for each hospital, to be implemented from 2012. It stipulated that the size of the

allowance is to be based on the performance of the hospital and the complexity and/or severity of its caseload, although specific indicators have yet to be devised. The move towards a fixed allowance was intended to allow hospitals to plan capital investments more flexibly without being required to seek approval from the state government as it was the case prior to the 2009 legislation.[53]

4.2.2. Financing hospital care

The 2000 Statutory Health Insurance Reform Act introduced activity-based funding as the new payment system for the hospital sector and mandated the self-governing bodies, that is the German Hospital Association, statutory health insurance funds and private health insurers, to develop a methodology based on diagnosis-related groups (DRGs).[9] Gradually phased in from 2003 as a voluntary option, since 2004 all hospitals are required to document their activity using DRGs and, with some exceptions, are now almost entirely paid through this mechanism.

The main aim of introducing activity-based funding into the German systems was to encourage appropriate resource allocation, to increase the efficiency of hospital production by creating a competitive payment system and to decelerate the growth of expenditure in the hospital sector.[54] Prior to the introduction of activity-based funding hospitals were reimbursed through a two-tier system of per diem rates (introduced in 1993), including (i) a basic per diem to compensate for non-medical costs at the hospital level and a per diem covering medical costs at the level of the hospital department; and (ii) case fees applied to a patient's entire hospital stay (mainly for elective surgery) and some procedure fees which were paid on top of slightly reduced per diems.

The German DRG system (G-DRG) is based on the based on the Australian Refined Diagnosis-Related Groups. It applies to all hospitals, irrespective of ownership status, and, with a few exceptions, all patients, including SHI members as well as those holding private health insurance or who are self-funding.[9] Until recently, the DRG system applied to all clinical areas except psychiatric care, psychosomatic medicine and psychotherapy. This changed with the aforementioned 2009 Hospital Financing Reform Act, which mandated the German self-governing bodies to develop and introduce a prospective payment system for these areas by the year 2013.

It has been noted that the introduction of DRGs has contributed to enhancing transparency in the hospital sector.[9] It was also suggested that specialisation on the one hand and the increasing hospital market penetration by (for-profit) hospital chains and the concentration of hospital capacity on the other hand can be linked, at least in part, to the introduction of the DRG system, among other things. A recent evaluation of the G-DRG system reported that the concentration of capacity varied among specialties, with for example ophthalmology, obstetrics and ENT experiencing acceleration of the decrease of related hospital departments whereas neurology and neurosurgery saw an increase in the number of departments.[161] The authors emphasised however that while the introduction of DRGs had an important role in these developments, it was not the sole factor explaining observed trends. Hospital financing has remained subject to critical debate, in particular the dual approach to hospital financing which has been criticised on grounds that the level of public investment in hospitals was considered no longer appropriate to meet infrastructural needs.[9] Thus, public investment in hospitals has steadily

fallen over the past 20 years, by some 27 per cent (nominal) between 1991 and 2011,[57] while at the same time the financing of operational costs has faced pressures following the introduction of the DRG system.

4.2.3. Regulatory oversight

Quality assurance measures have been a mandatory element in contracts between hospitals and social health insurance funds since the 1989 Health Care Reform Act. However, a legal obligation for the hospital and ambulatory care sectors to engage in external quality assurance and internal quality management was only introduced in the early 2000s. This was accompanied by a range of measures, including the introduction of activity-based payment of hospital care, using diagnosis-related groups (DRGs) as described above.[162]

Since 2003, hospitals have been legally required to produce and publish quality reports every two years. In addition, in 2004, the government introduced mandatory minimum volume targets for a range of specific surgical procedures, which have to be met by hospitals if they wish to qualify for reimbursement through SHI.[163] Providers in the ambulatory care sector are required to implement internal quality management systems according to minimum standards determined by the Joint Federal Committee in 2006.

The introduction of a statutory requirement for quality reporting was part of a wider governmental effort to strengthen quality assurance in the German healthcare system, which also required hospitals since 2000 to implement external quality assurance mechanisms.[162] It involves the measurement and documentation of the quality of care on the basis of quality indicators, a process supported, initially at state and federal level, by the Federal Office for Quality Assurance, with findings fed back to individual hospitals in the form of reports and recommendations. In January 2010, these tasks were transferred to the AQUA-Institute (*AQUA-Institut für angewandte Qualitätsförderung und Forschung im Gesundheitswesen*), a private for-profit research institute. The institute has been commissioned by the Joint Federal Committee to further conceptually develop and implement quality assurance measures, with the aim to for these to span both secondary/hospital and primary/ambulatory care.

Mandatory hospital quality reports were introduced in 2003 (with 2005 being the first reporting year on 2004 data). National regulation issued by the Joint federal Committee provides detailed guidance on structure and content of quality reports, whose purpose is to:[164]

- Improve the transparency and quality of care in hospital.
- Provide information and guidance and to support decisionmaking of all interested actors such as patients and providers in relation to hospital services.
- Establish a basis for comparable information and recommendations of the associations of SHI associations and SHI funds for their members (SHI physicians, patients) about the quality of hospital care.
- Provide hospitals with the opportunity to publish information on quantity and quality of services provided and so help improving transparency.

Quality reports have to be prepared annually and submitted to statutory health insurance and private insurers and their respective associations, which are required to make these reports available to the various actors in the healthcare sector and to publish these online. This information is made available through a range of portals, operated by SHI funds or the hospital associations at federal and state level.[162]

4.3. Drivers and challenges

The preceding sections have illustrated that the hospital market in Germany has undergone considerable change during the past 20 years, with substantial declines in the number of hospitals and hospital beds, which were accompanied by a decline in the average length of hospital stay and a simultaneous increase in the volume of inpatient cases. There was an overall trend towards privatisation in the hospital sector as well as concentration and consolidation, through hospital mergers and the formation of hospital groups in the public, not-for-profit and for-profit sectors. There is a range of factors that have contributed to these trends, with hospital financing perhaps at the core. We have highlighted above the role of DRGs, and in particular the declining levels of public capital investment, which means that hospitals may have to compensate investment needs through income generated from service provision.

One key informant interviewed for this study noted that access to capital was somewhat easier for private providers than for public providers while also observing that the relative high levels of capacity in the German hospital sector created an environment in which hospitals have to compete for patients (IntD01), which would provide for an important driver for change. It was further noted that private not-for-profit and for-profit hospitals might find it easier to restructure than many public hospitals:

Private hospitals in Germany are successful because they are politically independent. The boards of directors and management boards are not staffed with politicians [as is the case with public hospitals] [...] Public hospitals often conflate the mission of the hospital as a health service provider with political interests, employment, security, etc. (IntD01)

There is an expectation that both privatisation of the hospital sector and the formation of hospital groups will continue in the foreseeable future, if perhaps at a lower rate of growth.[165] One further key informant interviewed for this study that public hospitals did not have a genuine interest in privatisation unless they had to:

This is a decision that is not typically made by the managing director or hospital staff, but the owners, the local government. And these will usually only agree [to privatisation] where the hospital has incurred a deficit on a scale that restructuring is no longer feasible or where the hospital burdens the local budget in a way that its sale would help relieving the local budget. (IntD02)

A survey of managing directors and owners of public and private not-for-profit hospitals conducted in 2013 found that 55 per cent of respondents believed that their hospital would enter into a merger within the coming five to ten years, and 56 per cent would consider a merger with a hospital that had a different ownership.[59] However, propensity to merge with a hospital of different ownership was higher among

not-for-profit hospitals than among public hospitals. The main motivations for agreeing to a merger with another hospital (whether of the same ownership type or not) were securing the site and economic considerations. The main challenges that respondents foresaw were identified as differences in the organisational culture between the merging parties.

The 2012 ‘hospital barometer’, an annual survey of a representative sample of general hospitals with 50 and more beds, found that hospitals judged their own economic situation increasingly as negative, with 44 per cent considering it to be somewhat unsatisfactory, compared to 27 per cent that thought their economic situation was comparatively satisfactory.[166] Ratings were particularly poor among larger hospitals. When asked about their expectations for the forthcoming financial year, only about one fifth expected their situation to improve while some 40 per cent anticipated a worsening of their economic performance. More recently, a survey of managers of acute care hospitals conducted in 2013 found that the financial situation of hospitals had remained challenging, in particular for public hospitals.[167] Keeping in mind that only 17 per cent of a sample of 1,800 managers responded to the survey, it is notable that of those operating public hospitals, 56 per cent reported to have concluded the year 2012 with a financial deficit whereas a similar situation was only reported by 39 per cent of those managing a private, not-for-profit hospital (the number of respondents representing private for-profit hospitals was too small to allow for conclusions to be drawn).

In the light of continued financial challenges, in 2013, the German government passed a set of measures to provide hospitals with support equating to some €880 billion during 2013–14.[168] There is recognition of a need to reform the approach to hospital financing and a working group of representatives of the federal government, state government and coalition parties was formed in May 2014 to develop a reform for the reorganisation of the hospital sector.[169]

4.4. Hospital groups: Agaplesion gAG and Rhön-Klinikum AG

This section seeks to provide insight into two hospital groups in Germany. We selected among the largest groups in the public and private for-profit sectors, these are respectively AGAPLESION gemeinnützige Aktiengesellschaft (not-for-profit joint stock company) and Rhön-Klinikum AG (see Table 13). When considering Rhön-Klinikum AG it is important to note that, in February 2014, the German competition authority approved the acquisition of 40 of its hospitals and medical care centres by Fresenius/Helios, the second largest private for-profit hospital chain in 2012 (see Table 13).[26] This meant a substantial downsizing for Rhön-Klinikum to a smaller portfolio of hospital services (see below).

We first present an overview of the main indicators for the two groups (Table 14) and then examine each hospital group in further detail. The information presented here is drawn from publicly available materials only and the depth and breadth of data that was available varied between the two hospital groups.

Table 14 Key indicators of Agaplesion gAG and Rhön-Klinikum AG, 2012

	Agaplesion gAG	Rhön-Klinikum AG §
Revenue	€990.5 million	€2.86 billion

		(2013: €3 billion)
Number of facilities with beds (all categories)	90	54 (2013: 54)
Number of beds (all categories)	9,400	17,089 (2013: 17,113)
Number of acute care hospitals	29	54 (2013: 54)
Number of acute care beds	6,400	15,230 (2013: 15,233)
Number of patients treated (incl. outpatient)	~ 500,000	2.56 million (2013: 2.65 million)
Number of staff	~19,000	43,059 (2013: 43,363)
Medical staff (FTE) *	817.6	15% of staff
Nursing staff (FTE) *	2,640.9	32% of staff

Notes: * unclear whether figure includes staff of proDIAKO and the Ökumenisches Verbundkrankenhaus Trier, which joined Agaplesion from 2012; § Figures for Rhön-Klinikum refer to 2012 and 2013 only; from 2014, the company operates a smaller portfolio, following the sale of 40 hospitals to Helios/Fresenius.[26]
Source: Agaplesion (2013) [24], Rhön-Klinikum (2013; 2014) [26 158]

4.4.1. AGAPLESION

AGAPLESION, a not-for-profit joint stock company, describes itself as a ‘modern health enterprise’ that seeks to bring together ‘excellence in medicine, nursing care, and management with Christian values’.[170] It was ranked the second-largest (by total bed count) private not-for-profit hospital group in 2012,[23] and, as shown in Table 13 above, with some 6,400 beds the largest in the acute care sector in Germany.

Number and type of facilities

Agaplesion provides a range of medical and social care services, comprising inpatient and outpatient care, rehabilitation, day care, home care, nursing care, assisted accommodation and hospice care. In 2012/13, facilities included 29 acute care hospitals with 6,400 beds, mostly providing general acute care but also tertiary care, nine medical care centres (‘Medizinische Versorgungszentren’), 31 care, nursing or residential homes with over 3,000 places and 800 assisted accommodation places, providers of home care services, two hospices, as well as 11 nursing schools and one academy for continuous education and training.[171]

Agaplesion describes itself as one of the largest providers in geriatrics, with cardiology forming a further area of focus.[24] In addition, hospitals cover a wide range of medical and surgical services, such as neurology, obstetrics, radiology, psychiatry and pathology, among others; operate chest-pain units and a small number of stroke units; and are embedded in the provision of emergency services at regional level. Services also include physical therapy, speech therapy, psychotherapy and others. Nine hospitals are teaching hospitals, providing residency training in 20 specialties and engaging in national and international research. As noted above, Agaplesion further provides a range of residential and social care services.

Agaplesion is headquartered in Frankfurt/Main, and although facilities operate in eight federal states, there is some concentration of members in the Frankfurt area in the federal state of Hessen and neighbouring states in south-west Germany.

A wide range of support services has been centralised, and operated from the company's headquarters in Frankfurt. These include quality management; accounting and finances; controlling; procurement; human resources; information technology; and internal audit services, among others (see also below). The bundling of support services is viewed a range of 'synergies' benefitting organisations joining Agaplesion by means of optimising the use of material, human and financial resources (through for example, central procurement, insurance), encouraging 'know-how transfer' through information exchange in working groups and areas (such as IT), and benchmarking, in particular in medical and financial controlling.[172]

Mission

Agaplesion describes its values as being 'anchored in the Christian faith'.² They form the basis for the company's activities, alongside ensuring 'excellence in medical and nursing care as well as responsible management'.[173] The organisation is driven by six core values: charity, respect, responsibility, transparency, professionalism, and efficiency.[24] An interdisciplinary steering group is tasked with the monitoring of the values and the initiation of related projects. The values also serve to ensure ethical conduct and innovations are assessed against these values. All staff with management responsibility have to attend regular training at the organisation's own academy, the Agaplesion Akademie Heidelberg; the training is guided by the core values as a means to anchor them into the daily work of the organisation.[24]

Origins and evolution over time

Agaplesion has its origins in the Frankfurter Diakonie Kliniken gGmbH, a cooperation of four protestant hospitals, established in 1998 as the then largest not-for-profit hospital group in Frankfurt/Main. Agaplesion was eventually established in 2002 as a not-for-profit joint stock company between Frankfurter Diakonie Kliniken gGmbH, the Bethanien Krankenhaus Geriatisches Zentrum (a provider of geriatric services) in the city of Heidelberg and the Protestant hospital Elisabethenstift in Darmstadt. In doing so the founding members sought to sustain and 'continue the work of the Diakonie'³ in a demanding economic and competitive environment.[174] Agaplesion has grown steadily since, most

² The name Agaplesion is derived from the Greek 'agapéseis tôn plesíon' (love thy neighbour).

³ 'Diakonie' is the social welfare organisation of Germany's Protestant churches (<http://www.diakonie.de/the-social-welfare-organisation-of-the-protestant-church-in-9306.html>).

recently (in 2012), adding a large not-for-profit charitable group proDIAKO gGmbH located in the federal state of Lower Saxony, and with it five hospitals, four nursing homes and six medical care centres ('policlinics') to its portfolio.[24] The take-over of proDIAKO was approved by the competition authority in Germany (Bundeskartellamt) on 19 September 2012.[175]

Agaplesion attributes its success over the years to its legal form, which emphasises the company's 'cooperative spirit' and permits facilities that join the enterprise to retain local autonomy and leadership.[174] Its strategy is described as a 'unifying strategic framework' that forms the basis for planning at regional level.[24] Strategic goals are to be oriented towards the Christian values underpinning the organisation while taking account of the broader developments in politics, society, economy and science. Based on this and as described in the 2012 company report, the strategy is characterised by three core features: (i) a 'client-oriented service portfolio', seeking to organise services around the needs of individual patients or residents while taking a 'system approach' that includes pre-admission and post-discharge services, or counselling services, among others; (ii) 'forward-looking organisational development', involving the continuous development of processes; and (iii) being an 'attractive employer' through for example the granting of 'adequate pay and good working conditions', or work-life balance.[24]

Ownership and governance model

As noted above, Agaplesion was established as a not-for-profit joint stock company; the choice of the legal form was motivated by a desire to cooperate in order to grow.[174] Newly integrated hospitals are acquired at a 60 per cent share, so local partners maintain a strong position and autonomy in local decisionmaking (Figure 14).

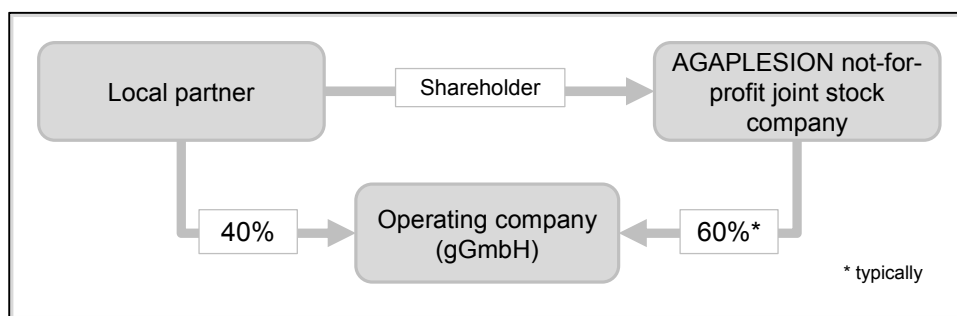


Figure 14 Partnership principles of Agaplesion aAG

Source: adapted from Agaplesion (2013) [24]

Thus, while Agaplesion takes the lead on overall strategy development, local partner organisations retain leadership on core operations such as medical services, nursing and care services in their facilities.[174] Partners receive company stocks and become shareholder. In addition to local involvement, partners take on joint responsibility for the company through voting rights in the general assembly and board of directors.[24] The overall governance model includes a board of directors of 18 members, which oversees the management of the company. Board members are elected by the general assembly of partners, which

also decides in the use of company profits. The management board is comprised of five members, led by the managing director.

The core element of the organisational structure is described as ‘integrative management structure’ and which is described in Figure 15.[24] Within this model, central services are assigned a core function to ‘capture, bundle, assess and present to the management board, the managing directors and other managers the entire company-wide expert knowledge’.[175] The role of central services is described as being not only advisory but also to ensure that company directives and framework concepts are being implemented and adhered to as well as making available exemplars and best practices to staff.

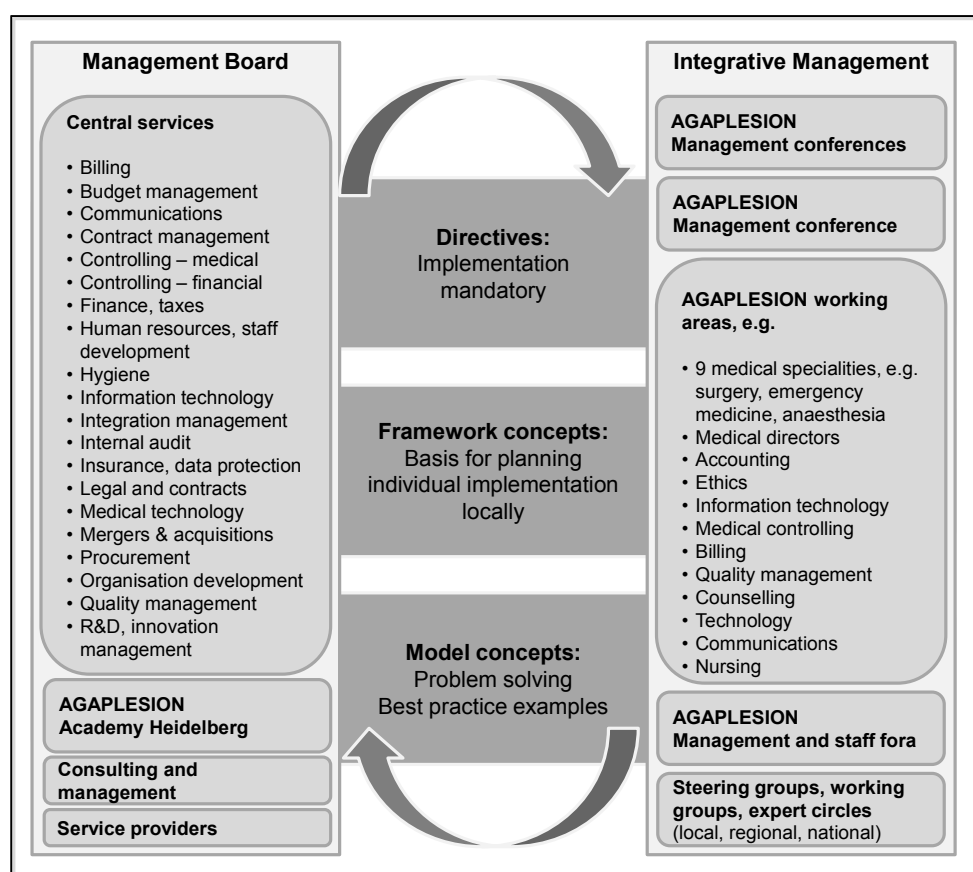


Figure 15 Integrative management structure as described by Agaplesion aAG

Source: adapted from Agaplesion (2013) [24]

Other components include a total of 23 working areas, which, according to company documents, ‘seek to capture expert knowledge and insight from across the organisation’; for example, it is noted that heads of medical departments from across the partner organisations meet in regular intervals to discuss innovations, or set standards.[175] Similar groups are in place in other working areas as shown in Figure 15. Results or proposals from working groups are decided upon by the management board or the management conference. Further components include management and staff fora, which are described as regular meetings (four times per year) of all staff to inform them about new developments; in addition, the company organises an annual management conference of the 150 leading senior managers.

Financial turnover

In 2012–13, the registered capital of Agaplesion aAG was reported to be €16.6 million, divided into ~332,600 shares (at €0.50 each).[175] In 2012, the company recorded investments of a total of €66.4 million, of which 63 per cent were from own resources. The net revenue generated from the provision of hospital services was reported to be €450.5 million; for the remaining areas, the net revenue was reported to be €120.5 million. Total revenue was just over €1 billion, total profits in 2012 equated to €9.9 million.

4.4.2. Rhön-Klinikum AG

Rhön-Klinikum AG describes itself as among the largest health service providers in Germany.[158] In 2012, the company ranked third among the largest private, for-profit hospital groups (by bed count), following Asklepios Kliniken and Helios Kliniken (Table 13).[25] As noted above, following the acquisition of the majority of its hospitals to Helios-Kliniken, in early 2014, the company is currently in the process of restructuring.[176] In the following, we focus on the company profile until 2013, and briefly reflect on the new strategy following the recent changes in its portfolio.

Number and type of facilities

In 2013, Rhön-Klinikum AG operated 54 hospitals providing the range of general acute to highly specialised services and rehabilitation services, with a total number of beds of 17,113, of which 15,233 were acute care beds, as well as 41 medical care centres.[26] The group includes three university hospitals and 22 teaching hospitals practical undergraduate training in for medical students; Rhön-Klinikum hospitals are also authorised to provide post-qualification training in a wide range of specialities in line with the regulatory requirements set by the relevant regional physicians' chambers.[158] The company's staff is involved in research, through participation in clinical studies nationally and internationally. The research component was strengthened further in 2006 with the acquisition of the university hospital Giessen and Marburg in 2006 (see also below).

Rhön-Klinikum AG is headquartered in Bad Neustadt an der Saale (north Bavaria), with individual hospitals operating in nine of the 16 federal states.[26]

Mission

The stated aim of Rhön-Klinikum is to provide 'high-quality and affordable care close to home for everyone'.[177] The emphasis is on safeguarding autonomy in medical decision which the company interprets as a core condition for the delivery of high-quality care; interdisciplinary collaboration between doctors and nurses and the endorsement of integrated delivery models stretching across the ambulatory/hospital interface; and the promotion of innovation locally and across hospitals and external partners, drawing in particular on the research portfolio of its partner university hospitals. The company was the first hospital operator to be listed on the German stock market (1989), which it sees as an important advantage with its access to capital permitting rapid investment into its facilities and operations.[177]

Origins and evolution over time

Rhön-Klinikum has its origins in the takeover of operations of a spa and rehabilitation centre with 66 staff in Bad Neustadt an der Saale (the company's headquarters) by the company's founder (who is also chair of board of directors), in 1973.[26] The company initially expanded through the establishment of new facilities within the Bad Neustadt region, such as the psychosomatic clinic in 1975, or the conversion of the original spa and rehabilitation centre into a centre for heart and vascular diseases (Herz-und Gefäßklinik Bad Neustadt) in 1984,[178] which also signalled the move of Rhön-Kliniken into the acute hospital care sector.[179] In 1988, the company converted from Rhön-Klinikum GmbH (limited company) into Rhön-Klinikum AG, a joint stock company, subsequently listed on the stock market as the first hospital group in Germany.[180] It continued to expand primarily to the establishment of new hospitals, with the opening of the Klinikum Meiningen in 1995 considered an important milestone as first acute care, general hospital built from private sources and in private ownership.[26] From the mid-1990s, expansion of the company was increasingly through acquisition, typically of small to medium-sized hospitals, which would then become privately owned and operated as limited company or joint-stock company.[179] A further decisive step in the evolution of Rhön-Klinikum was the acquisition (95 per cent of the shares), in 2006, of the university hospital Giessen and Marburg, the third largest university hospital in Germany (around 2,600 beds), which represented the first privatisation of a university hospital in Germany.[158] In parallel, Rhön-Klinikum has increasingly invested in the establishment (and acquisition) of hospital-based medical care centres (MVZ) as a means to better coordinate the ambulatory and hospital care sectors, which, in Germany, have traditionally been strictly separated although this is slowly changing.[179] This move was described as a move towards vertical (as well as horizontal) service coverage within the healthcare system. Between 2006 and 2013, the company increased the number of its MVZ from 6 to 41.[26 179]

Since 2012, Rhön-Klinikum has been in negotiations with Helios-Kliniken (since 2005 owned by Fresenius AG), following a take-over offer by the latter seeking to acquire at least 90 per cent of Rhön's shares.[181] However, the initial approach did not succeed, with other large hospital chains also entering the process through acquiring Rhön shares. However, in September 2013 the takeover bid was accepted, with Helios-Kliniken acquiring 40 hospitals and 13 medical care centres from Rhön-Klinikum AG, following approval by the German competition authority.[26] In its 2013 company report, Rhön-Klinikum states that following this change, it plans to concentrate on a 'homogenous hospital portfolio' with five hospital sites (which includes the university hospital Giessen and Marburg), which will focus on 'medical excellence and high-quality medicine', with around 5,000 beds and 15,000 staff, and an anticipated financial turnover of €1 billion.[26]

Ownership and governance model

As noted above, in 1988, Rhön-Klinikum AG converted from a limited company into a joint-stock company and enlisted on the stock market from 1989. The company states that good corporate governance was a 'high priority', which, alongside a 'transparent, legally flawless and ethical' culture formed the prerequisite for sustainable operations.[26] The company's governance model includes a management board, responsible for managing the company; from mid-2013 it comprised three members and is led by the managing director. The management board is supported by a board of directors with a total of 20 members, elected by the general assembly of shareholders (10 members) and staff (10

members). The board is chaired by the company's founder.[182] The management board is also supported by an advisory board, with its seven members representing academia in the areas of medicine and economics. Its tasks are to advise the management board about trends hospital care and healthcare as well as developments in medicine.

The governance model further includes seven standing committees (in 2013), of which four have executive function: investment, strategy and finance; human resources; arbitration; and audit. Further committees include: medical innovation and quality; and nominations. An anti-corruption committee was replaced, in November 2013, by a compliance and communication committee, which has executive function.[26]

Financial turnover

In 2013, Rhön-Klinikum AG reported a turnover of €3 billion (a 5 per cent increase on 2012), and an overall profit of €90 million (a loss of 2.6 per cent on 2012).[26] The revenue generated from the provision of hospital services was reported to be €2,905 million; for medical care centres it was €58.5 million and for rehabilitation services it was €50 million.

5. Ireland

5.1. Health system context

The Irish health system is financed mainly through taxation, which accounted for 67 per cent of total health expenditure in 2011, complemented by out-of-pocket payments (18 per cent) and private health insurance (about 12 per cent).[30] In 2011, approximately 48 per cent of the population were covered by private health insurance. Private health insurance is voluntary and duplicative, providing a wider choice of providers and faster access to the public system. The co-existence of public and private patients in and differential access to publicly funded hospitals has created two tier-health system in Ireland.

Regulation of the healthcare system is embedded in legislation, set out in the Health Act, which defines the roles and responsibilities of all health system actors.[34] The Department of Health is responsible for the governance of the health system, under the direction of the Minister of Health. The Health Service Executive (HSE) was created in 2005 to establish a single national body, replacing the decentralised regional Health Board structure. The HSE is responsible for the provision and management of healthcare and personal social services. It is also responsible for the budget of the health system.

Every person ordinarily resident in Ireland is entitled to healthcare in the public system free of charge (Category I) or at reduced cost (Category II).[2] Approximately 37 per cent of the population fall into Category I, a means tested public insurance scheme known as the General Medical Scheme (GMS).[183] These patients hold a medical card which entitles them to access health services free of charge. Patients with a medical card pay a co-payment for prescription medication (€2.50 per item up to a maximum of €25 per month for prescription drugs).[184]

Eligibility for a medical card is based on income. Those with incomes slightly higher than the threshold to qualify for a full medical card may be eligible for a 'GP-only visit' card. Those in Category II have access to public hospitals subject to some charges (currently €75 per day up to a maximum of €750 in any consecutive 12 month period)[185] and pay out of pocket for most other services including GP services and medication (payments capped at €144 per month per individual or family as part of the Drugs Payment Scheme).[186]

Healthcare services are provided by a mix of public and private providers. Ambulatory care (care outside hospital including out-patient and primary care services) is mainly provided by office-based primary and secondary care physicians.[34] Within their contracts, most hospital consultants retain the right to treat private patients in public hospitals for which they are paid a fee-for-service. They are paid a salary for treating public patients. General practitioners (GPs) are self-employed independent providers who are contracted by the Health Service Executive to provide certain services including services under the General Medical Scheme. Patients who hold a medical card must register with a GP who holds a GMS

contract. Private patients (that is those without a medical card) are not required to register with a particular GP and are subject to out-of-pocket payments for GP services. GPs have a strong gatekeeping role in the Irish health system; a GP referral is typically required to access publicly funded hospital services. A non-emergency visit to Accident and Emergency is subject to an out-of-pocket charge of €100. This policy was introduced to deter inappropriate use of emergency services.[34]

Hospitals are owned and operated by a variety of public, charitable or religious and private for-profit organisations. Beds in public hospitals may be designated for the treatment of public or private patients.[34] In 2012, almost one third of non-capital expenditure was spent on hospital care (Figure 16).[187] Approximately 59 per cent of the capital public expenditure was spent on the acute hospital programme. There are also a small number of private hospitals operating in Ireland.

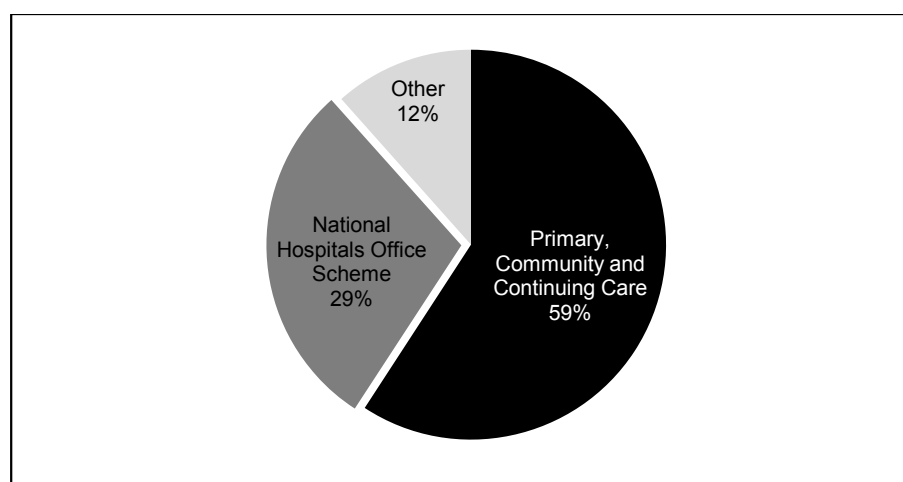


Figure 16 Gross Non-Capital Health expenditure by programme, 2012

Sources: Adapted from Department of Health Key Trends (2013)[187]

5.2. Organisation, financing and delivery of hospital care

5.2.1. Defining and categorising ‘hospital’

Since the Health Act of 1970, the public health service is legally required to provide certain types of hospital services including emergency, inpatient and outpatient services.[56] In Ireland, hospitals are typically categorised according to ownership. Public hospitals include those owned by the Health Service Executive and voluntary hospitals.[46] Voluntary public hospitals were originally owned and run by religious orders although many are now operated by a lay board of governors. They are not-for-profit hospitals and funded primarily by the government, in practice operating in the same way as an HSE-owned hospital.[46] There are also a number of private hospitals which are considered business enterprises and require a license under the industrial code. Public hospitals are further subdivided into regional, county and community hospitals although these terms are used less frequently.

Official statistics distinguish general hospitals from ‘other’ hospitals. General (or acute care) hospitals include voluntary and HSE-owned public hospitals and provide a broad range of services that are not exclusively dedicated to a particular patient group. ‘Other’ hospitals are defined as those that provide

specialist medical or surgical services in a particular area such as maternity hospitals, cancer hospitals or orthopaedic hospitals.[186] Acute hospitals refer to those providing medical and surgical treatment for a relatively short duration of time. There are also a number of small community hospitals containing units for medicine and minor surgery. Most community hospitals are effectively long-stay facilities with greater medical support than an average nursing home.[188]

In addition to being distinguished by ownership (HSE-owned, voluntary, private), public hospitals can be further categorised according to type of care. For acute medical patients, the recently established National Acute Medicine Programme (AMP) has proposed a four hospital models based on varying levels of access to acute care.[189]

- Model 1 is the community/district hospital.
- Model 2 hospitals are local hospitals with selected (GP referred) medical patients containing Medical Assessment Units (MAU) which operate from 8am to 8pm seven days a week.
- Model 3 hospitals are general hospitals with Acute Medical Assessment Units (AMAU) which operate 7 days a week for 12 to 24 hours depending on need.
- Model 4 are considered tertiary hospitals with Acute Medical Units (AMU), co-located with the Emergency Department, which operate on a 24/7 basis to provide early specialist treatment of adult patients.

The AMP is in the process of being implemented and a number of units have been established at hospitals around the country.

Number of hospitals by type

The number of acute hospitals quoted in official publications varies. According to a recent report on establishing hospital groups published in 2013, there were 49 publicly funded acute hospitals in Ireland including maternity and orthopaedic hospitals.[16] There are currently 19 acute hospitals providing maternity services in the health system. According to data provided by the Department of Health and Children to the OECD, there were 24 privately owned for-profit hospitals in the country in 2012.[2] Focusing on acute general hospitals (including public and private but excluding specialties), there were 55 acute general hospitals within the HSE National Hospital Office Network in 2012.[2] It is not possible to examine the number of beds according to hospital ownership as beds in public hospitals may be designated as private.

Table 15 shows the number of full-time medical and non-medical staff working in publically funded acute hospitals in December 2011, with the ratio of staff to the number of beds included.[2] It is not possible to look at staff levels by hospital ownership as consultant doctors can engage in public and private activity within public hospitals as well as private hospitals.

Table 15 Full-time hospital staff in public acute hospitals in Ireland, December 2011

	Public
Medical staff	6,318
Non-medical staff	43,147
Nursing staff	19,839
All	69,304
<hr/>	
<i>Number of beds</i>	<i>13,487</i>
<i>Ratio beds-medical staff</i>	<i>2.13</i>
<i>Ratio beds-nursing staff</i>	<i>1.47</i>

Source: Adapted from OECD.Stat, data provided by Health Service Executive (2013)[2]

Trends in the number of hospitals and hospital beds

According to the OECD, the number of general (acute) hospitals in Ireland has been relatively stable over the last 10 years, ranging from 53 in 2001 to 55 in 2011.[2] Since 2009 public and private general acute hospitals (excluding specialties) in the HSE network have been counted.

Figure 17 provides an overview of trends in some of the key indicators of publicly funded acute (general and specialist combined) hospital capacity over a period of 10 years.[187] The data are based on general and specialist acute hospitals combined and demonstrate year on year changes in each indicator. It shows that, between 2003 and 2012, the overall total number of acute hospital beds (inpatient and day beds) declined by 1.4 per cent. Inpatient beds decreased by 11.1 per cent over the same period while day beds increased by 125.4 per cent reflecting, the growth in day-case activity within the system.[187] The average length of stay also declined, from 6.2 days in 2003 to 5.4 in 2012 (13 per cent). Bed occupancy rates increased from 77.5 per cent in 2003 to 86.5 per cent in 2012. The number of inpatient cases also increased over the period by 14 per cent.

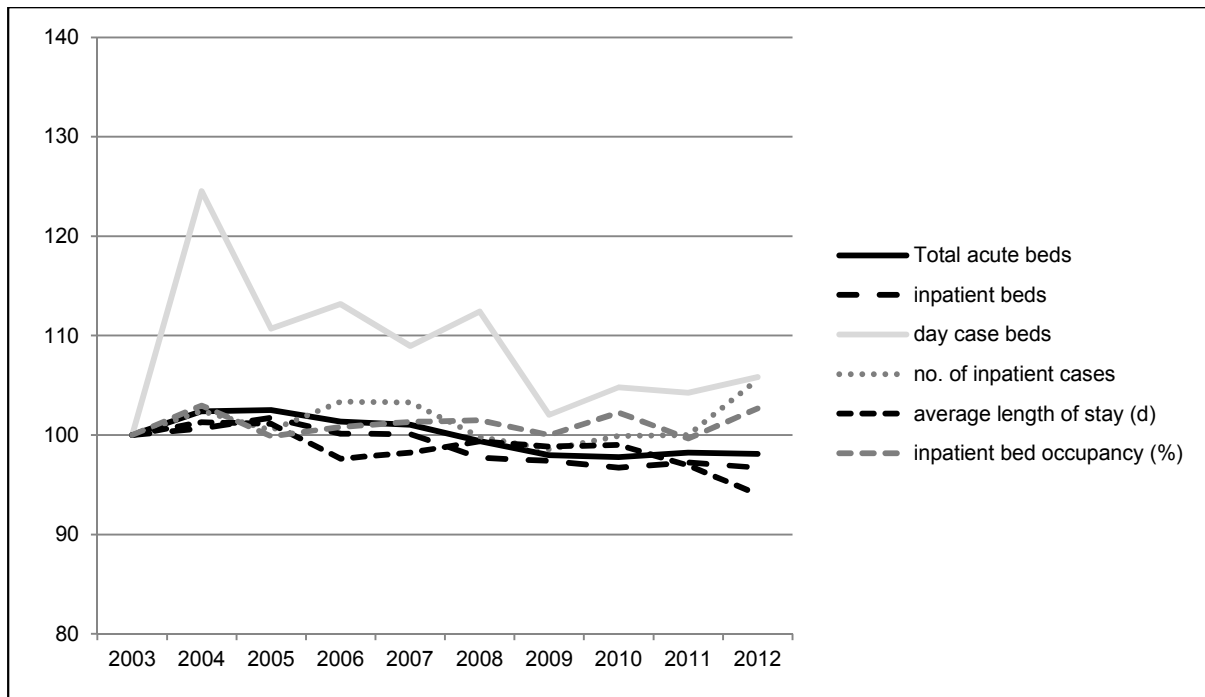


Figure 17 Year-on-year trends in key indicators of hospitals in Ireland, 2003–2012

Source: Adapted from Department of Health Key Trends (2013) sourcing activity data from the Hospital In-Patient Enquiry (HIPE) system and data on beds from the Health Service Executive [187]

The increase in the number of day beds within the acute hospital system is further illustrated in Figure 18. It illustrates the sharp increases between 2004 and 2008 with a continued albeit slower increase thereafter. Between 2011 and 2012, the number of day beds increased by approximately six per cent.[187]

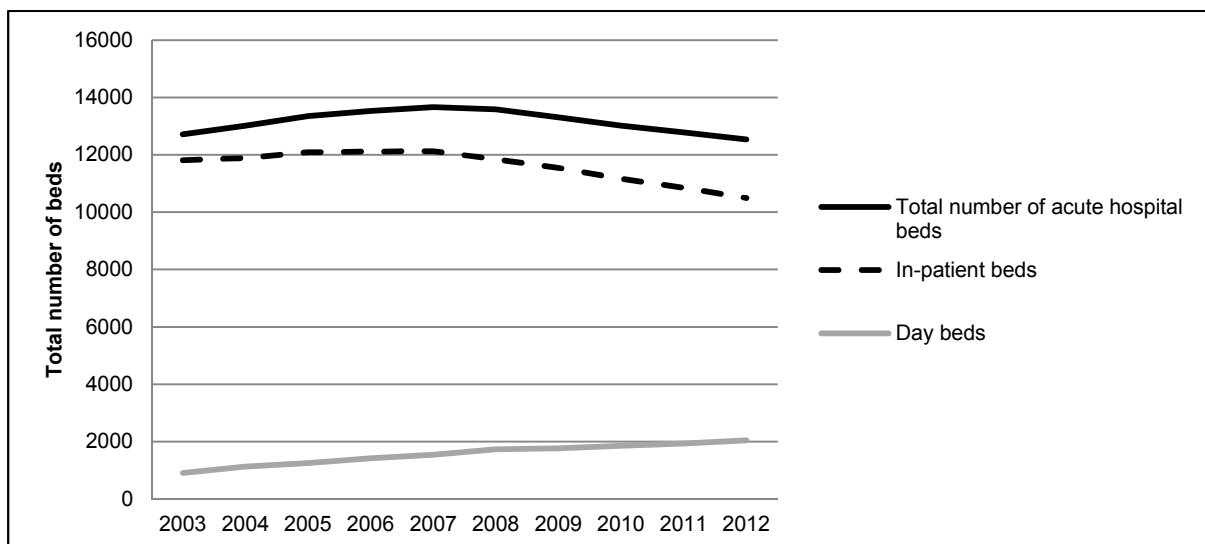


Figure 18 Trends in the number of hospital beds in Ireland, 2003–2012

Source: Adapted from Department of Health Key Trends (2013) sourcing data on beds from Integrated Management Returns 2003–2005 and Health Service Executive 2006–2012 [187]

5.2.2. Planning of hospital capacity

With the establishment of the Health Service Executive in 2005, planning and delivery of health services was centralised to a single body. This replaced the former decentralised regional system of Health Boards.[34] There are four administrative areas within the HSE, each covering a geographical region: HSE Dublin Mid-Leinster, HSE Dublin North East, HSE West and HSE South. Each area is required to provide key services (including family doctors and public hospital services) and must provide service plans that give a detailed breakdown of how funding provided by the HSE will be spent during the year.

As part of the HSE, the National Hospitals Office (NHO) was set up in 2005 to plan and manage acute hospital services on a single national basis. The NHO was led by a national director and was responsible for the organisation and coordination of hospital services including the location and configuration of particular services and specialties.[34] It was also responsible for Pre-hospital Emergency Care Services (ambulance and emergency response services). Hospitals were grouped into eight Hospital Groups, two in each administrative area. Each network was managed by a network manager.

This organisational structure has since been reformed. In 2012, a framework for health reform was published, *Future Health*, which laid out plans to establish a new Directorate structure including an Acute Services Directorate.[190] We describe the more recent reforms in further detail below.

5.2.3. Financing hospital care

Public hospitals are financed by a fixed budget each year from the HSE. Budgets are primarily determined on a historical basis with some adjustments.[56] Under the National Casemix Programme, the budget of most public hospitals is adjusted using diagnostic related group-based activity and costs from the previous year. In 2012, 38 hospitals participated in this programme.

Publicly funded hospitals also receive fees for patients who opt to be treated by private consultants in public hospitals. The charges are determined by the Minister for Health and vary by hospital category and by private, semi-private and day-case status. Where previously 20 per cent of beds in public hospitals were designated as private, an amendment to the Health Act (2013) means that public hospitals can now charge all inpatients who choose to be treated as a private patient in a public hospital.[191] In recent years, the Department of Health has significantly increased the charges for private patients in public hospitals, having effectively subsidised private care in public hospitals for many years.[192]

5.2.4. Regulatory oversight

The Department of Health is ultimately responsible for the governance and performance of the health service, under the direction of the Minister of Health. Over the last 10 years a number of structures have been put in place to enhance the quality and safety of the health services. The Health Information and Quality Authority (HIQA) was set up in 2007 as the national authority responsible for setting standards and monitoring quality in the health system.[34] This was the first time a national structure had been put in place for the setting, monitoring and evaluation of quality of healthcare in Ireland. HIQA are an independent body and report directly to the Minister for Health. The authority is responsible for:

- Setting quality and safety standards for health and social services.

- Monitoring and carrying out investigations into quality and safety concerns including hygiene inspections.
- Conducting health technology assessments (drugs, diagnostic techniques, equipment, health promotion activities).
- Evaluating and publishing information about the delivery and performance of the health system.

HIQA also act as the Inspectorate for Social Services in Ireland. This is one of the most well-known functions of the authority. This role involves registration and inspection of residential homes for children, older people and people with disabilities. Since 2009, HIQA is responsible for the independent registration and inspection of all residential care homes for older people, including public, voluntary and privately owned facilities.

The Health Insurance Authority (HIA) was established in 2001 as a statutory regulator of the insurance market.[34] At present there is no mandatory licensing system for hospitals in Ireland. However, it is envisaged that all hospitals (public and private) will be licensed before the establishment of independent trusts.[16]

Public reporting of quality indicators is not mandatory in the health system. In 2014, the Department of Health published a report which examined the potential of using hospital discharge data from the Hospital In-patient Enquiry (HIPE) system to develop key quality and safety indicators for the health system.[193] The aim is to establish national quality reporting system with a governance process to oversee the selection and reporting of quality indicators at regional and national level that will enable international comparison with other health systems.

5.3. Drivers and challenges

The government plan to introduce universal health insurance (UHI) to eliminate the inequitable two tier health system which currently exists where people with private health insurance gain faster access to hospital services than public patients.[194] It will also provide universal access to primary care and GP services free at the point of use, for which private (non-medical card) patients currently incur a charge. Under the UHI model it will be mandatory to purchase private health insurance from a chosen provider. This will entitle the individual to a standard package of services including primary and acute care services.

At present, there is no outline as to what services will be included in the standard package or how much insurance premiums will cost the individual on an annual basis. The issue of nominal co-payments has also been raised in discussions. These issues are subject to a public consultation process which is ongoing. In 2014, the government plan to introduce free GP care for all children under 6 years old as part of the phased introduction of UHI. The Irish Medical Organisation recently reached an agreement with the Department of Health allowing them to represent GPs in contract negotiations.

The overarching model of Universal Health Insurance will be supported by a new financing system for hospitals, known as *Money Follows the Patient*. [56] The new payment system will be based on episodes of care provided in a medical assessment unit, acute medical assessment unit, or acute medical unit, clinical decision unit, day ward or inpatient ward. The cost of emergency services provided in the emergency

departments and minor injury clinics and the costs of teaching and research will not be included in this funding system. Episodes of care will be defined using activity data from the existing Hospital Inpatient Enquiry Scheme (HIPE) and the diagnostic-related group (DRG) system. A Healthcare Pricing Office has been set up within the Health Service Executive. The price for an episode of care will be based on the complexity of care and not the setting to encourage the delivery of appropriate care in the appropriate setting. In the first instance prices will be set with reference to average costs but will eventually be based on 'best practice' prices as guidelines are developed. Prices will incorporate pay and non-pay costs, the cost of diagnostics, medical services, laboratories, wards and overheads and the costs of clinical indemnity. In 2011 a prospective funding pilot scheme was introduced for certain elective procedures in preparation for the Money Follows the Patient system.[56] The pilot involved prospectively setting prices and activity levels for four elective DRGs at selected sites. The sites were then funded for those procedures on the basis of coded information returns which confirmed the delivery of the agreed activity. The challenge now is to introduce this system across all hospitals.

Under this proposed financing system, a Healthcare Commissioning Agency will be established from within the HSE which will eventually become an independent statutory purchaser. This plan aligns with proposals to develop hospital groups and ultimately independent hospital trusts to provide acute services. The Money Follows the Patient funding system is proposed as a way to introduce a fairer and more transparent system of resource allocation as hospitals will be paid for the care provided.

5.4. Hospital groups: A new approach to service delivery in Ireland

Hospital services have been the subject of policy and planning for a number of years. At a national level, the HSE has developed a new governance structure with six directorates including a directorate for acute hospital services. This reform is part of the government's wider plan to abolish the Health Service Executive which was set up in 2005 by the previous administration. The Health Service Executive (Governance) Bill 2012 provides for the abolition of the Board of the HSE which will be replaced by a Directorate, headed by a Director General [190]. The new governance and management structures will allow for re-organisation of services to facilitate the wider introduction of Money Follows the Patient and the introduction of Universal Health Insurance. In future, hospital groups will report to the National Director for Hospitals.

At present, the National Director of Acute Services is responsible for the development of hospital groups, a new organisational structure of acute hospitals in Ireland. Plans for the development of hospital groups are set out in the Report on *The Establishment of Hospital Groups as a transition to Independent Hospital Trusts*, published in 2013.[16] This report recommends a model based on six groups of hospitals building on existing care pathways between a number of hospitals in addition to a hospital group for paediatrics. Hospitals have been grouped to meet the requirements of the population in given geographic areas. Each group will comprise of between six and eleven hospitals and will have at least one major university teaching hospital, a National Cancer Control Programme (NCCP) centre, a maternity service and a mix of model 2 to model 4 hospitals according to the Acute Medicine Programme model outlined previously. Each group will have a unified governance and management structure with a chief executive responsible for performance and outcomes within a single budget and employment ceiling. The plans to develop

hospital groups will see the centralisation of high-risk care to larger centres, maximising the use of smaller hospitals for low-risk cases through referral pathways. The role of smaller hospitals is set out in *The Framework for Smaller Hospitals*.^[15] This document recommends the expansion of certain services in smaller hospitals such as day surgery, ambulatory care for chronic disease and older people, medical services such as chronic disease management clinics and diagnostics such as blood tests and X-rays. In the interests of quality and safety certain services with volume sensitive outcomes will be transferred to larger centres. All hospitals will operate as part of an integrated group and will eventually be subject to licensing requirements for quality and safety.

It is envisaged that the hospital group structure will lead to the establishment of independent not-for-profit hospital trusts on a statutory basis in Ireland.^[16] Hospitals in some regions have already begun to develop the necessary administrative and governance structures to operate as a group. All six hospital groups have had a Group Chairperson appointed however, a number are still awaiting the appointment of a Group Chief Executive Officer (CEO).

6. United States

6.1. Health system context

The United States spends more on healthcare per head than any other country, although there is substantial variation across states. In 2011 health expenditure accounted for 17.9 per cent of GDP.[29] Figure 19 shows the breakdown of health expenditure by source. The proportion of public and private spending is relatively evenly split but only 30 per cent of the US population is covered by the public financing system through the Medicare programme, which provides health insurance coverage to those aged 65 and older and the disabled, and the Medicaid programme which provides health insurance for those for those with very low income and assets (Figure 19).

The federal system of government and the market nature of the system mean that governance occurs at multiple levels and involves multiple organisations. Health policy and administration is in the remit of the US Department for Health and Human Services (DHHS), with the Centers for Medicare & Medicaid Services (CMS) responsible for administering the public health insurance programmes.[196]

Healthcare financing derives originally from employers, employees and individuals, through different taxes, premiums and other out-of-pocket expenses. These finances then flow to private insurers, health plans and state and federal governments. At a federal level, payroll taxes and other sources such as income taxes on social security benefits fund the Hospital Insurance Fund. This pays for Medicare Part A and the Part A component (mainly hospital care) of part C coverage. Medicare Part A benefits related to hospital care would include inpatient hospital care, skilled nursing facility care, home health care and hospice care. [29 197]

Health services are predominantly provided by private provider organisations and purchased by insurers, typically preferred provider organizations (PPOs) or health maintenance organizations (HMOs). [29] The type of insurance dictates the degree of choice of provider, with PPOs providing a greater choice of provider than HMOs. Healthcare services are regulated by federal, state and local governments, and private provider regulatory organisations and independent non-governmental regulatory organisations. At the federal level the Department for Health and Human Services has the largest regulatory role in the US health system, encompassing agencies such as the Centers for Medicare & Medicaid Services (CMS), the Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA). There are also state regulatory authorities, including public health departments, provider licensing boards and insurance commissioners, and regulation at the local counties and city level.

At a federal level, the most recent legislation on the US health system is The Patient Protection and Affordable Care Act (ACA) was signed into law by the president on March 23, 2010, with the main aim

of increasing access to affordable health insurance coverage.[198] The act instigated comprehensive health insurance reforms to strengthen existing forms of health insurance coverage, expand Medicaid to cover all legal US residents with family incomes less than 133 per cent of the federal poverty level, and, for those individuals and families who do not have affordable employer coverage or another form of ‘minimum essential coverage’ such as Medicare or Medicaid, put in place a new affordable health insurance market.[198] Until the beginning of 2014, there was no requirement for individuals to have health insurance cover. The available data reflect this situation, with 17 per cent of the population uninsured in 2012.[199] The majority (54 per cent) of the population receive coverage from private health insurance, typically obtained through an employer, while 29 per cent are covered through public sources. The proportion of uninsured is expected to reduce following the Affordable Care Act (ACA) ‘individual shared responsibility provision’, implemented in 2014.

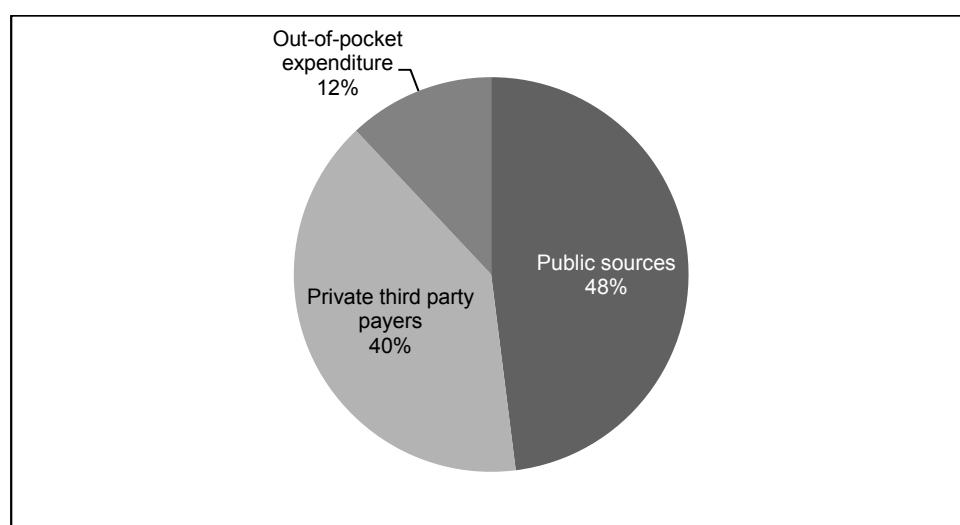


Figure 19 Breakdown of sources of healthcare expenditure in the United States

Source: Adapted from Rice (2013)[29]

6.2. Organisation, financing and delivery of hospital care

Defining and categorising ‘hospitals’

The US government, through the Centers for Medicare and Medicaid Services, defines a hospital as ‘an institution primarily engaged in providing, by or under the supervision of physicians, inpatient diagnostic and therapeutic services or rehabilitation services’.[200] Under this definition, one hospital may have multiple inpatient campuses and outpatient locations.[200] The American Hospital Association is a national organisation that represents and serves all types of hospitals. Registered hospitals are those hospitals that meet the American Hospital Association’s criteria for registration as a hospital facility, irrespective of AHA membership status. Hospitals are eligible for registration if they are accredited by a hospital by the Joint Commission on Accreditation of Healthcare Organisation or certified as a provider of acute services under Title 18 of the Social Security Act. In lieu of such accreditation, the AHA sets ten broad requirements, including that an institution should maintain at least six inpatient beds for the care of patient show stay on average in excess of 24 hours per admission.[36]

Hospitals can be distinguished or categorised in a number of ways, including: (i) length of time patient spends in facility (acute or long term); (ii) ownership model (public, private for-profit or private not-for-profit); or (iii) specialty (general, special, rehabilitation and chronic disease or psychiatric).

By ownership model:

- *Public hospitals* are owned by governments, federal or state. They are based in urban and rural areas but typically provide care to patients who would have limited access to care elsewhere and a significantly higher proportion of patients in public hospitals are uninsured or funded through Medicare or Medicaid when compared to all hospitals.[201]
- *Private not-for-profit hospitals* are typically supported by a board of trustees and rather than paying dividends to shareholders, surplus revenue is reinvested. A not-for-profit hospital does not pay state or local property tax or federal income taxes because it is considered a charity. To be eligible for this, a hospital has to prove certain community benefits in accord with state and federal guidelines.[40]
- *Private, investor-owned, for-profit hospitals* are owned either by private investors or are publicly owned companies with shareholders in which case these companies can issue stock to raise capital for re-investment.[40]

Not-for-profit hospitals on average operate in areas with higher incomes, lower poverty rates and with lower rates of uninsured patients when compared to for-profit hospitals.[40] Historically, investor-owned, for-profit hospitals have tended to be focused in the southern United States but this now expanded more nationally.

A further category of hospitals are ‘academic medical centres’. There are around 400 academic medical centres in the USA that typically operate in the not-for-profit sector. These are hospitals and health systems (see below) with a close affiliation to a medical school. In addition to direct patient care they feature residency and fellowship training programmes and pursue clinical research.[202] Academic medical centres account for around 20 per cent of all hospital admissions, surgical operations and outpatient visits.[68] They are associated particularly with tertiary care.

Number and size of hospitals by type

Figure 20 provides a breakdown of 5,723 registered hospitals in the United States by type. The majority of hospitals, 87 per cent, are community hospitals which can be further broken down as: (i) nongovernment not-for-profit (58%); (ii) investor-owned (for-profit) (21%); (iii) state and local government (21%).[36] Community hospitals are hospitals that are accessible by the general public and defined as all non-federal, short-term general and other special hospitals which include obstetrics and gynaecology; eye, ear, nose and throat; rehabilitation; orthopaedic; and other individually described specialty services.[36] Academic medical centres or other teaching hospitals are also considered community hospitals if they are non-federal short-term hospitals. ‘Hospital units of institutions’ refer to entities such as prison hospitals and college infirmaries which would not be considered under the term community hospital.

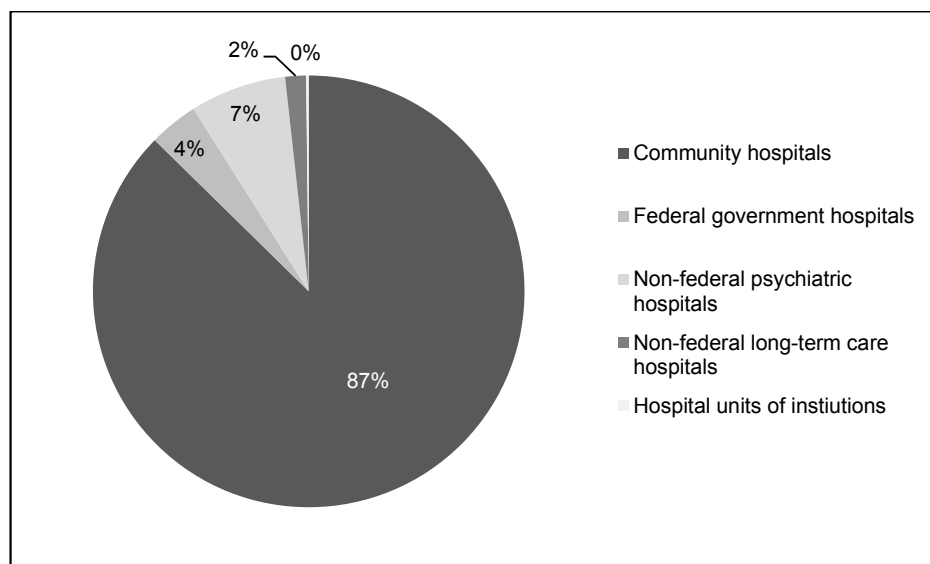


Figure 20 Hospitals by type, United States (2012)

Source: Adapted from American Hospital Association (2014) [36]

In 2012, community hospitals accounted for 87 per cent of 920,829 staffed beds in US registered hospitals.[52] Since 2000, the number of for-profit hospitals has increased from 15 to 21 per cent of total community hospitals and nongovernment not-for-profit and state-local government have decreased slightly (Table 16). Of all community hospitals, 60 per cent were urban and 40 per cent rural hospitals.[36 52]

Table 16 Community hospitals by ownership type, 2000 and 2010

	2000 (n., % total community hospitals)	2012 (n., % total community hospitals)
Nongovernment not-for-profit	3,003 (61)	2,894 (58)
For-profit	749 (15)	1,068 (21)
State-local government	1,163 (24)	1,037 (21)
Total Community hospitals	4,915 (100)	4,999 (100)

Source: Adapted from American Hospital Association (2014) and Center for Disease Control (2012) [36 52]

Community hospitals vary considerably in size from under 25 beds to 500 or more (Figure 21) but around 80 per cent have fewer than 300 beds and 60 per cent fewer than 200 beds. In 2010, bed occupancy rate increased with size of hospital from 32 per cent in 6–24 bed hospitals to 73 per cent in hospitals with 500 beds or more.[36 202] Occupancy rates by ownership model were lowest in for-profit community hospitals, at 57 per cent, with similar occupancy for not-for-profit and state-local government hospitals, at 66 and 64 per cent respectively.

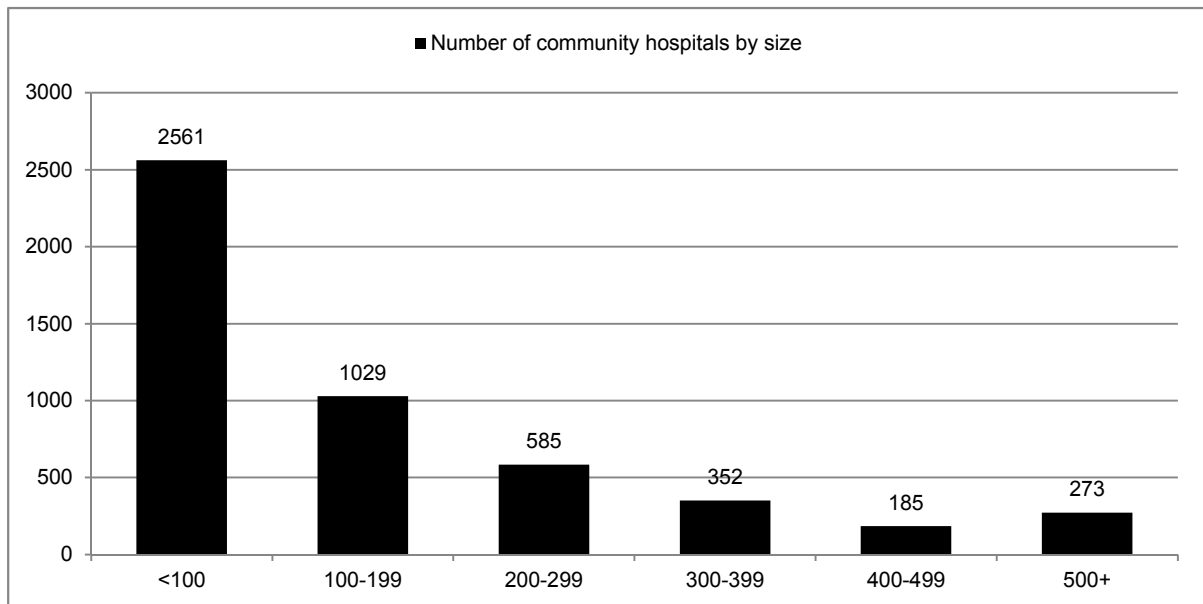


Figure 21 Number of community hospitals by size, 2010

Source: Adapted from the American Hospital Association (2014) [36]

Just under three quarters of community hospitals are part of a ‘health system’ or ‘network’. These are defined as follows by the American Hospital Association:

- **A system** is either a multihospital or diversified single hospital system. A multihospital system consists of two or more hospitals owned, leased, sponsored, or contract managed by a central organisation. Single, freestanding hospitals may be categorised as a system by bringing into membership three or more, and at least 25 per cent, of their owned or leased non-hospital pre-acute or post-acute healthcare organisations.
- **A network** is a group of hospitals, physicians, other providers, insurers and/or community agencies that work together to coordinate and deliver a broad spectrum of services to their community.

System or network affiliation does not preclude the other. Based on 2012 data, 62 per cent of community hospitals were part of a system and 30 per cent part of a network.

Trends in number of hospitals and hospital beds

The total number of community hospitals has remained relatively stable over the last decade. The number of community hospitals that are part of a health system has increased in the same timeframe (Figure 22).

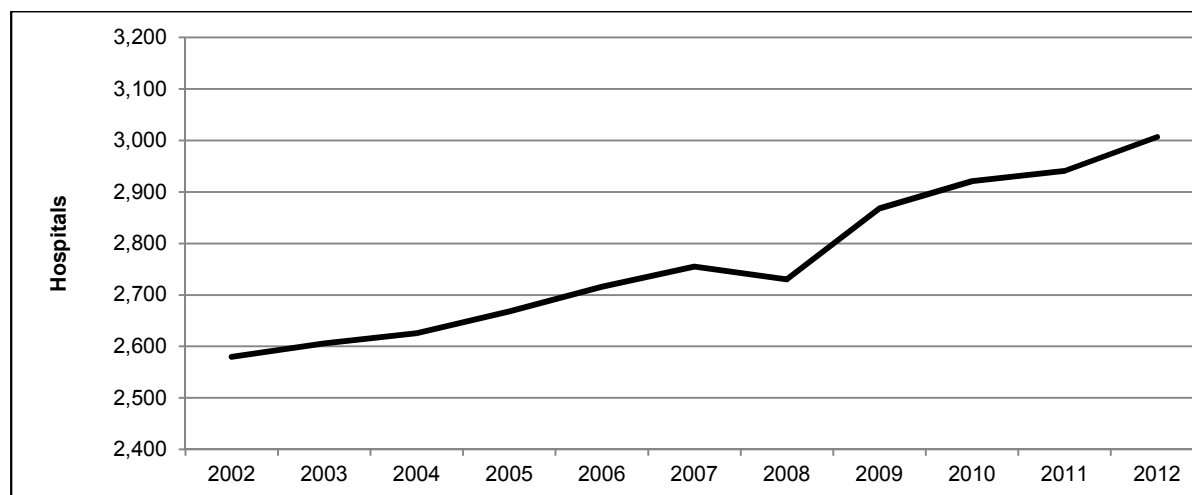


Figure 22 Number of hospitals in health systems, 2002–2012

Source: Adapted from American Hospital Association (2014)[36]

Table 17 presents an overview of the five largest private and not-for-profit hospital system providers.

Table 17 The five largest for-profit hospital systems and not-for-profit hospital providers in the United States, by number of hospitals

For-profit hospital operator (Number of hospitals)	Not-for-profit hospital system (Number of hospitals)
Hospital Corporation of America (HCA) (162)	Ascension Health (100)
Community Health Systems (135)	Catholic Health Initiatives (86)
Health Management Associates (71)	CHE/Trinity (82)
LifePoint Hospitals (57)	Adventist Health System (43)
Tenet Healthcare Corp (49)	Dignity Health (38)

Source: Becker’s Hospital review 2013 [202]

As noted, community hospitals account for the majority of hospital beds. The number of beds and number of beds per 1,000 persons have both decreased from 2000 to 2012 (Figure 23). It is important to note that there is considerable variation in beds per 1,000 population across states with some states having over 5 and some less than 2.[203] Occupancy rates in 2010 by ownership type were largely similar, within two percentage points, to rates in 2000.[52]

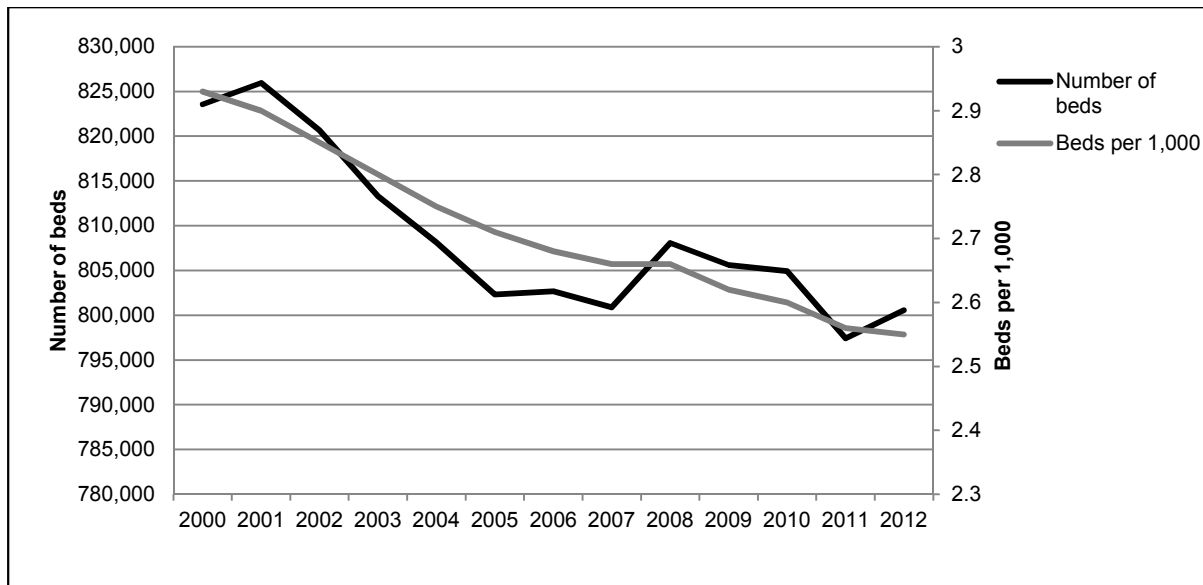


Figure 23 Number of beds and number of beds per 1,000 population, 2000–2012

Source: American Hospital Association (2014)[203]

6.2.1. Planning hospital capacity

The United States has the lowest average bed occupancy among all industrialised countries.[204] Several contributing factors are driving the need for greater efficiency in the hospital sector and capacity planning is receiving increasing attention as a result of this. Litvak and Bioggnano (2011) suggested that there are a number of policy options that would improve capacity management and increase efficiency. These included federal regulation and alterations in payments systems to include bundle payments and having throughput and bed capacity as a requirement of accreditation, although appropriate technical assistance would need to be given to support hospitals adequately to do this.[204]

Key informants explained that since the 1970s, bed numbers and capacity have not really been considered a useful indicator in hospital planning because they do not provide a useful indication of the services provided (IntUS02, IntUS04).[205] In 1974 federal law compelled states to have structures to approve major capital investments such as building hospitals. This was repealed in the late 1980s but many states still maintain Certificate of Need programmes which aim to assess whether proposed capital investment is justified based on population need to try to prevent excess capacity and control prices. There are competing views as to how effective these programmes have been.[206] One of our key informants reflected that, in those states where certificate of need programmes were active, they did not tend to restrict planned activity although could lengthen processes (IntUS04). Overall, rather than any centralised capacity planning, the number and size of hospitals were considered to be driven by the market.

Although driven largely by market forces, there is some regulatory management of growth in the hospital sector through anti-trust law. Hospital or hospital system expansion can be challenged through Antitrust enforcement policy, issued by the Department of Justice and the Federal Trade Commission.[207] The law seeks to ensure choice for consumers and challenges providers when taking over half of the market

share. In practice, federal rulings can be overridden at a state level if a state commits to oversight of, for example, a market consolidation (USInt03).

6.2.2. Financing of hospital care

Government programmes accounted for over half (57.4 per cent) of hospital costs by payer type in the United States in 2011, with Medicare being the largest component of spending within this, 39.3 per cent.[203] Other hospital payment sources are private payers, for example, private insurance (34.6 per cent) and non-patient sources which cover operating services not attributed to any one payer and costs such as cafeterias and parking (2.1 per cent). In 2011 uncompensated care accounted for 5.9 per cent of hospital spending.[203] This is care for which no payment was received either from patient or insurer. It does not include underpayment through Medicare and Medicaid.[208] The relative distribution of cost by payment type will vary by hospital but the general pattern is likely to be similar across for-profit and not-for-profit hospitals and both incur bad debt through uncompensated care.[40] The activity of hospitals and distribution of inpatient and outpatient revenue has changed markedly from the 1990s. In 2011, 43 per cent of revenue was outpatient revenue and 57 per cent inpatient whereas in 1991, only 24 per cent of revenue was generated from outpatient care.[29 203]

Medicare hospital payments are prospective and based on diagnosis-related groups (DRGs). Medicaid payment for hospitals varies by state through three principal mechanisms: DRGs, per diem and cost reimbursement. Hospitals may receive additional payments from states if they are designated as disproportionate share hospitals (DSHs), meaning that they serve a large proportion of Medicaid and uninsured patients. Hospital payments through insurers and health plans are based on per diem payments, negotiated between each hospital and insurer, typically on an annual basis.[29]

It was clear from our key informants, that hospitals and hospital systems were preparing themselves for a move from fee-for-service to capitated or fixed payments. Some were handling this already through payment plans that pay a fixed payment system but, at the time of writing, there remained uncertainty to what the unit of payment was likely to be so hospitals were often working with both fee-for-service and fixed payments models (IntUS04). The contrasting incentives that these models bring were openly acknowledged:

But if we move away from the fee for service system to more of a fixed price, price per episode or capitation of price per person per month or a global budget which some organisations in some locations have, then you start to say well I'll put the patient in the bed when they absolutely need it but I'll try to do everything I can short of admitting then as an inpatient. If I can get the same good outcomes and if I can do it for a whole lot less money I'll hold off on the most expensive setting which is the bed and we know that our system is headed that way. (IntUS03)

Capital funding

Sources of capital funding for hospitals depends on ownership model but typically capital investments are made through internal reserves and external sources. Internal reserves may include positive net income or

sale of assets. External sources include borrowed money, equity offerings, venture capital, capitalised leases, real estate investment trusts, public grants and donations.[29] Data from the American Hospitals Association suggest that hospitals place most importance on tax-exempt bonds and that they are the major source of funds for not-for-profit hospitals (IntUS02).[29] Equity is a major source of funding for for-profit hospitals. Rice et al. (2013) report that access to capital is linked to some extent to organisational structure, geography and operating characteristics of hospitals. Hospitals with broadest access to capital tend to be larger, not-for-profit private or government-owned, teaching and rural. Those with a high proportion of Medicaid patients, low occupancy, longer than average length of stay and low operating margins tend to have more limited access to capital.[29] Internal and external sources of capital funding were have been more constrained and affected significantly by the economic downturn.

6.2.3. Regulatory oversight

The United States has a national framework for creating national standards, but does not have a strong central oversight and enforcement mechanism to assure the quality of care.[196] The considerable power of state governments as the primary regulators of healthcare, and the tendency to rely on private markets to purchase and provide care creates challenges to a unified national quality standard. The traditional focus of regulation in the United States has been on quality assurance, which aims to ensure facilities meet a minimum standard with regard to structural and organisational characteristics to deliver care. Through a series of state and federal laws, the different levels of government and private organisations combine to ensure the quality of care provided to patients.

A number of organisations have varying roles in ensuring patient safety in the United States. Mello et al. (2005) described these roles as problem identification, research and innovation, mandate setting, and enforcing compliance.[209] Most organisations have a remit for either mandate setting and enforcing compliance (e.g. Centers for Medicare and Medicaid Services) or problem identification and research and innovation (e.g. Agency for Healthcare Research and Quality). A more limited number of organisations, including the Joint Commission, an independent, not-for-profit organisation, take on each of these roles.[210]

Medicare and Medicaid hospital providers are regulated through Federal rule by CMS.[211] Related law includes the 'Hospital conditions of participation: patients' rights' which focuses on patient safety and protection of patients from abuse.[212] Hospitals are accredited by the Joint Commission which sets standards that hospitals must adhere to for accreditation, and requires that they participate in quality improvement activities. It also conducts random surveys of healthcare facilities. To earn and maintain the Joint Commission's Gold Seal of Approval, an organisation must undergo an on-site survey by a Joint Commission survey team at least every three years.[210] The majority of individual performance measures are not released to the public but the overall accreditation rating is made public. Hospital licensing is the responsibility of state government. In some states accreditation by the Joint Commission as required by CMS is also used as the licence requirement.

The Affordable Care Act (2010) has more recently introduced incentive payments within hospital care. For example, the Hospital Valued Based Purchasing (VBP) programme rewards acute care hospitals with

incentive payments for the quality of care they provide to people with Medicare.[213] Performance is measured in different domains: process of care; experience of care; patient safety; hospital acquired infection; and efficiency.[214]

The Affordable Care Act (2010) established the Centre for Medicare and Medicaid Innovation, a substantial investment that had been made in supporting Hospital Engagement Networks (HENS).[215] These networks operate at regional, state, national or hospital system level to promote learning between hospitals to help achieve quality measurement targets and improve patient safety and may include technical assistance, training and the establishment of monitoring systems. There are currently 26 networks in operation with 3,700 participating hospitals.

6.3. Drivers and challenges

As noted, there has been increasing consolidation of the hospital market in the United States. It is considered that pressure for hospitals to consolidate and form health systems will increase following the ACA because of reduced growth in Medicare hospital reimbursements.[11] There are competing theories as to the main drivers for hospital consolidation and the growth of health systems. On the one hand, systems bring potential benefits of economies of scale and the opportunity to improve coordination, efficiency and quality (IntUS02). On the other hand, health systems can command greater market share to negotiate with health plans (IntUS02) and once they command a large market share can raise prices through greater market power.[11] One key informant interviewed for this study explained that this was partly as a push back against increasing consolidation within the insurance market (IntUS03). Economies of scale could be in the operations sense including areas such as accounting, human resources or procurement but also in terms of learning and keeping up with moving regulation and payment mechanisms (IntUS03). It was also reported that certain regulatory changes had made consolidation easier. Most recently, a requirement to have one staffing structure per hospital was removed meaning that hospital systems can now pool staff across hospitals in a system which provides greater efficiency to the system (IntUS03). The requirement to have one governing board for each individual hospital had also been removed.

Academic medical centres are thought to have a particularly powerful position in terms of health system consolidation as their reputation and greater access to capital, partly through philanthropic donations, are attractive to others. In 2010, approximately 20 per cent of health related merger and acquisition deals involved academic medical centres and this is expected to increase, with expansion beyond traditional regional markets. A recent report found that the brand of academic medical centres could be damaged because of imprudent affiliations or consolidations with other hospitals and because academic medical centres do not score at the top of quality rankings as might be expected.[68] The issue of access to capital investment was highlighted by our key informants with one key informant reporting that capital investment and debt was one of the major challenges facing hospitals in the United States, particularly with increasing provision of care outside hospital and increased competition:

The hospitals' [are] sitting on a big fixed pile of debt, remember, they borrowed to build those buildings and they have a 30 year life and it might be by the end of their year 10 that they're going to be half empty...nobody wants to lose the

money...what it means is you're sitting on a big investment in buildings
(IntUS02)

Mixed views were expressed by key informants as to how effective anti-trust regulation had been in the context of increased market consolidation in the United States with the feeling that it had been active, and that lots of challenges brought, but that this hadn't necessarily prevented acquisitions (IntUS03, IntUS04):

Most hospital consolidations have not been challenged and where they have many have withstood the test, but the federal trade commission has let it be known that they are ever watchful. (IntUS03)

A number of challenges have been raised with respect to anti-trust law as applied to the hospital sector in the United States including that it is driven by concerns over size of market share rather than the objective of providers and that it applies principally to the private sector creating a tension for government as the regulator and purchaser in both public and private markets.[11 60]

The other challenges raised by our key informants were around those of a sector adapting to significant reform under the Affordable Care Act (2010), for example, through the introduction of value based purchasing and the anticipation of change from a fee-for-service to capitation model of payment. At the time of reporting, the perceived challenges as reported by our key informants were as much concerned with the process of change itself rather than assessments of whether those changes were positive or negative for the sector or patients (IntUS01, IntUS03, IntUS04).

6.4. Hospital groups: Intermountain Healthcare and Hospital Corporation of America

We reviewed the Hospital Corporation of America (HCA) as the largest for-profit hospital group and Intermountain Healthcare as a not-for-profit health system. HCA is one of the longest standing hospital operators, established in 1968, in the United States and has hospitals or freestanding surgery centres in 20 states.[216] Intermountain in contrast has 22 hospitals and serves a more contained population in Utah and south-eastern Idaho although has been in operation for almost as long as HCA as established in 1975.[217]

6.4.1. Intermountain Healthcare

Intermountain describes itself as having an integrated delivery model, consisting of three main components; health services (hospitals and clinics), an employed physician group (Intermountain Medical Group) and a health plan (SelectHealth). The model is not closed as not all patients are enrolled in SelectHealth.

Number and type of facilities

Based in Salt Lake City, Utah, Intermountain Healthcare has 22 hospitals, about 1,100 employed primary care and secondary care physicians at more than 185 clinics (groups as the Intermountain Medical

Group). The hospitals and clinics serve residents predominantly in Utah and south-east Idaho. The hospitals provide a broad range of services. Most of the 185 clinics offer extended hours, full-service family care (including children’s and women’s services), radiology and laboratory services and minor surgery. Larger clinics also offer pharmacies and physical therapy services.[27] Medical records are electronically accessible for patients from any of the intermountain hospitals and clinics. Table 18 gives an indication of the scale of service provision across the organisation in 2012.

Table 18 Intermountain healthcare clinical statistics 2012

Service indicator	Number (2012)
Acute patient days	519,407
Acute admissions	140,141
Ambulatory surgeries	107,587
Inpatient surgeries	41,002
Emergency room visits	482,013
Births	30,873

Source: Intermountain (2013)[218]

Intermountain also own and operate six community clinics and support a further 12 independent community clinics. The community clinics provide services to uninsured, low-income and homeless people. In 2012 there were 25,838 visits to Intermountain owned clinics and 234,979 visits to supported clinics.[218] In 2012 there were around 600,000 members of the health plan, SelectHealth.[218]

Mission

Intermountain describes itself as an organisation driven by ‘a mission of excellence in the provision of healthcare services to communities in the Intermountain region’.[219] The mission is underpinned by a code of ethics which specify responsibilities in terms of ethical business practice, confidentiality and privacy, work environment, protecting Intermountain’s interests and reporting concerns of misconduct. The mission includes a commitment to provide care to those who live in the Intermountain region who have a medical need, regardless of ability to pay.

It has been noted that not-for-profit hospitals and systems appear to share the same goal of maximising profit as for-profit organisations but just distribute the profits in different ways.[11] Our Intermountain key informant did feel that the mission and not-for-profit status of Intermountain made a tangible difference in the leadership and culture of the organisation which he reflected had been key to the organisations success, longevity and ability to transform over time (IntUS01).

Origins and evolution over time

Intermountain Healthcare was established in 1970 when The Church of Jesus Christ of Latter-day Saints donated its 15-hospital system to the communities they served. Intermountain was therefore formed as a not-for-profit organisation to administer those hospitals. Its move into an integrated system has evolved over time. By 1985, it was a multi-hospital system where hospitals could compete against one another. Physicians who worked at Intermountain did so predominantly on an independent basis and, although a health plan existed, there was little interaction between different parts of Intermountain. The first phase of integration was seen to be between 1985 and 1992 where hospitals were reorganised by regions. Hospital governing boards were similarly reorganised and management took on regional responsibilities. Hospitals under this model began to cooperate rather than compete with each other. The emphasis in the second phase of integration, 1992 to present, has been on system integration between the hospitals, medical group of employed physicians and the health plan.[220] The focus throughout has remained focused largely on the communities of the Intermountain region (Utah and south east Idaho).

One of the strategic partnerships that Intermountain has developed is with the Huntsman Cancer Institute of Utah meaning that patients have access to Huntsman’s research while receiving care at Intermountain facilities.

Ownership and governance model

Intermountain has a central executive leadership comprising a Chief Executive Officer, Chief Operating Officer, Chief Financial Officer and Chief Strategy Officer. The organisation is then organised into regions and each has a similar executive committee. Key officers and leaders from across the region and divisions are then involved in system-wide decisionmaking through the council leadership. Intermountain also has a Board of Trustees, who serves without pay to help the organisation advance its mission. Board members set policy, create goals, evaluate performance and ensure the organisation operates in the best interest of the community. In addition to the central Board of Trustees, there are also trustees serving on hospital boards, charitable foundation boards and other care services.[221]

In terms of improving quality and efficiency services are organised around clinical programmes, e.g. women’s health. Groups are in place around each clinical programme to develop and push for best practice. Physician’s performance assessment can also be based on this. It was felt by one key informant that the system works quite well because there is enough critical mass involved to drive improvements and high performance (IntUS01).

Financial turnover

Table 19 gives a financial summary for Intermountain Healthcare in 2012.

Table 19 Intermountain Healthcare financial summary 2012

Funds available	USD in millions
Net patient services (e.g. including inpatient and outpatient care; net of 3,764.3 discounts provided for patients covered by Medicare and Medicaid)	

Funds available	USD in millions
Charity services	(252.5)
Bad debts	(206.8)
Non-patient activities	1,395.3
Non-operating income from investment activities	218.4
TOTAL FUNDS AVAILABLE	4,918.7
Funds applied	
Salaries and benefits	\$2,110.3
Medical supplies and services	1,297.5
Business services	589.2
Depreciation and amortization	236.9
Interest	49.0
Increase in funds available to improve/replace facilities, technology services	635.8
TOTAL FUNDS APPLIED	4,918.7

Source: Intermountain (2013)[218]

One key informant interviewed for this study explained that overall the organisation financially viable although the Intermountain Medical Group (employed physicians and care givers) loses money. The not-for-profits status means that the organisation needs to spend on charity care more than they would have otherwise paid in taxes. Intermountain usually targets a margin of 3 per cent to allow for reinvestment into infrastructure and services (IntUS01).

6.4.2. HCA (Hospital Corporation of America)

Number and type of facilities

It is thought that approximately 4–5 per cent of all inpatient care in the USA is provided by HCA (Hospital Corporation of America) facilities.[216] HCA own or operate acute care hospitals, psychiatric hospitals and outpatient healthcare facilities. At the end of 2013, HCA owned and operated 159 general, acute care hospitals with 42,240 licensed beds; operated five psychiatric hospitals with 556 beds; and, operated a 115 outpatient healthcare facilities. Most of the acute hospitals provide medical and surgical services, including inpatient care, intensive care, cardiac care, diagnostic services and emergency services. They also provide outpatient services such as outpatient surgery, radiology, respiratory therapy, cardiology and physical therapy. Some hospitals have an affiliation with medical schools and may host residents and interns but the hospitals do not typically engage in extensive medical research or education programmes.[28] The psychiatric hospitals provide therapeutic services including child, adolescent and

adult care. The outpatient care facilities comprise a range of type of facility: ambulatory surgery centres; freestanding emergency care facilities; and diagnostic and imaging centres. Table 20 presents a summary of key utilisation statistics in 2013.

Table 20 HCA utilisation statistics, year end 2013

	2013
Number of hospitals	165
Number of freestanding outpatient surgery centres	115
Number of licenced beds	42,896
Admissions	1,744,199
Equivalent admissions	2,844,700
Average length of stay (days)	4.8
Occupancy rate	54%
Emergency room visits	6,989,100
Outpatient surgeries	881,900
Inpatient surgeries	508,800

Note: Equivalent admissions are a measure of combined inpatient and outpatient involvement.

Source: HCA, 2013[28]

HCA runs affiliate companies to provide a range of management services to healthcare facilities, including ethics and compliance programmes; accounting, financial and clinical systems; information technology systems; legal counsel; human resources services; and internal audit services. Having such shared services for their own company was considered to be a major source of efficiency savings for HCA (IntUS04). A further advantage of scale was considered to be the standardisation of electronic health records and data investment opportunities.

We have invested heavily in a clinical data warehouse to take advantage of the electronic capabilities, electronic medical records and so forth inside of our company to give us better insight into why do we have better patient outcomes in some institutions versus others, what are the transactions, transactions that's not a good term, but what are the processes that our physicians and nurses use on the same type of patients, yet we get different outcomes. So we think we've got a lot of potential with big data. (IntUS04)

Although operating in 20 states there appears to be some geographic concentration with 42 hospitals in Florida, 36 in Texas and 12 in Tennessee, which reflects partly the historic concentration of investor-owned hospitals in southern states.

Mission

HCA states a commitment to ‘the care and improvement of human life and strives to deliver high quality, cost effective health care in the communities we serve’.[216] The HCA Code of Conduct provides guidance on carrying out daily activities within appropriate ethical and legal standards and is applied to relationships with patients, physicians, third-party payers, subcontractors, independent contractors, vendor and consultants. Our key informant explained that as a for-profit hospital system, there was considerable pressure to show commitment to the communities that they served and that the mission was important to the company (IntUS04). This was implemented in a number of ways through processes. For examples, all employees were required to undergo certification that they delivered on the mission and values of the organisation (IntUS04).

Origins and evolution over time

The Hospital Corporation of America, now known as HCA, was formed as a hospital management company by three physicians in 1968 in Nashville, Tennessee. In its time it has seen periods of rapid growth, followed by consolidation and has also moved from being a private to publicly traded company several times. HCA expanded by assembling a group of hospitals, in order to create economies of scale and enhance quality of care. The company grew through acquiring facilities and building new hospitals and contracting to manage hospitals for other owners. By the end of 1969, HCA had 26 hospitals and 3,000 beds. In a model that has lasted, HCA provided support and resources to facilities, but hospital management decisions were taken locally. The 1970s saw a period of continued rapid growth. By the end of 1981, HCA operated 349 hospitals with more than 49,000 beds.

The 1980s saw a focus on consolidation. HCA spun off a privately owned hospital company in 1987 but bought it out a year later. In 1992 HCE emerged as a public company. In 1994 HCA merged with Columbia and then the new company was acquired by Medical Care America and several other businesses, which led to the development of a comprehensive healthcare network which at one point had 285,000 employees, more than 350 hospitals, 145 outpatient surgery centres, 550 home care agencies and other ancillary businesses.

In the late 1990s, following the appointment of the founder’s son as Chairman and CEO, HCA was restructured to focus on providing high quality care through a core group of market leading hospitals; non-hospital businesses and facilities not fitting that strategy were sold off. When it was larger, HCA had both owned and managed hospitals but our key informant explained that all but a handful of hospitals now were owned by HCA and that this was the focus of their model although they have a subsidiary company that can provide operating services to other hospitals (IntUS04). In 2006 HCA was acquired by a private investor group and became a private company for the third time until 2011 when it once again became a publicly traded company.[222]

HCA currently operates in 42 markets across 20 states in the United States. The driver of which market they occupy is where the company assesses it can be in the largest one or two providers in the market (IntUS04). A significant way in which HCA appears to leverage its scale is through shared service and administrative functions such as payroll and procurement (IntUS04). The company has not diversified into other markets such as health plans, not believing it can compete with major players in a consolidated

market. Rather, our key informant explained that the strategy has been to maintain diversity both by operating in 42 markets and by providing all service lines within those markets rather than specialising. It was explained that this risk diversification means that at any time one service line or market may be cross-subsidising another (IntUS04).

Ownership and governance model

As described above, HCA owns and operates some of its healthcare facilities while others it operates. A continuing theme in the operation of HCA has been to provide resource and support to its facilities but that management decisions are taken locally. The corporate governance of HCA is a central Board of Directors & Officers and then a number of committees which serve to assist the Board of Directors in fulfilling its responsibilities. There are five committees:

- Audit & Compliance Committee
- Compensation Committee
- Section 16/162(m) Subcommittee (Acts concerning to equity compensation and performance-based compensation)
- Nominating & Corporate Governance Committee
- Patient Safety & Quality of Care Committee [223]

Beyond the central level, the company is organised into 15 divisions which are largely geographically determined according the clustering of hospitals. Each division then has a range of teams with responsibilities to reflect the central committee structure. For example, performance improvement teams would operate at the division level and report centrally to headquarters in Nashville (IntUs04).

Financial turnover

HCA receive payment for patient services from the federal government through Medicare, state governments through Medicaid or similar programmes, managed care plans, private insurers and directly from patients. In 2013 the largest source of revenue was from managed care and other insurers (54.6 per cent) with Medicare as the next largest source (23.3%). Total revenues for 2013 after provision for bad debt were USD 34,182 million.[224] In the same period, outgoings totalled USD 31,236 million resulting in a net income of USD 1,966 million.

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Appendix A Date collection template

1. Health system context

Please provide a brief description of the health system context in [country], approx. 500 words incl. a breakdown of health expenditure by major category (primary care, hospital care, pharmaceuticals, etc).

2. Organisation, financing and delivery of hospital care

- How is 'hospital' defined, what categories of hospital are there (e.g. according to function [teaching, general, specialist, other]; legal status [e.g. operated under public law, as private enterprise]; ownership [public, private non-profit, private for profit], etc.)?
- Please provide an overview of the *current* number and size of hospitals (number of sites, number of beds, staff composition, etc.) (latest data), by hospital category (e.g. ownership, function).
- Please provide an overview of *trends* in the number of hospitals and hospital beds over the past 10–15 years (by ownership, status, function where appropriate).
- Please describe the principal mechanisms for the *planning of hospital capacity* and whether and how this has changed over the past 10–15 years (~ 500 words).
- Please describe the principal mechanisms for *financing hospitals and hospital care* (capital investment, operating costs) and whether and how this has changed over the past 10–15 years (~ 500 words).
- Please provide an overview of the principles of *regulatory oversight* of hospitals incl. quality assurance/accreditation, competition, integration etc. (~500 words).

3. Drivers and challenges

Please provide a brief discussion of the main drivers behind observed trends in the hospital landscape in [country] as it regards number/size of hospitals, planning, financing and regulatory issues, as well as general challenges such as accessibility, financial issues, care quality and patient safety, service integration efforts etc. and anticipated future trends.