POLICY BRIEF 48

Does provider competition improve health care quality and efficiency?

Expectations and evidence from Europe

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- Tailor the way evidence is identified and synthesised to reflect the nature of the policy question and the evidence available
- Are underpinned by a formal and rigorous open peer review process to ensure the independence of the evidence presented.

Each brief has a one page key messages section; a two page executive summary giving a succinct overview of the findings; and a 20 page review setting out the evidence. The idea is to provide instant access to key information and additional detail for those involved in drafting, informing or advising on the policy issue.

Policy briefs provide evidence for policy-makers not policy advice. They do not seek to explain or advocate a policy position but to set out clearly what is known about it. They may outline the evidence on different prospective policy options and on implementation issues, but they do not promote a particular option or act as a manual for implementation.

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Key messages

Provider competition is a feature of several European health systems but policy-makers are split on whether it improves health care quality and efficiency. The evidence on provider competition in Europe is growing, but it remains limited and clustered in a few countries. Moreover, little is known about the mechanisms underlying the effects of competition on quality, costs and the efficiency of providers. Despite this, the experiences presented in this policy brief suggest the following points.

- The proximity to provider remains the main driver of patient choice of hospital. While patient demand does appear to change in response to quality differences across hospitals, the effects are relatively small.
- Hospital competition can improve quality in some areas, such as heart attack mortality, but the effect does not systematically translate to other quality dimensions of emergency and elective care, and in some cases may even reduce quality.
- There appears to be a tension between activity-based payments, which are a prerequisite for competition to work, and control over hospitals' volumes and expenditure. Mixed or blended payment systems may be used to alleviate this problem, but this can hinder quality competition.
- Hospital mergers can be a strategy to achieve economies of scale, but they reduce competition and do not seem to increase quality. Each merger requires a careful assessment to ensure it will bring benefits.
- The involvement of private providers in the provision of publicly funded hospital care is often motivated by the desire to improve efficiency by introducing competition between public and private providers. But the evidence suggests that public and private providers do not systematically differ in terms of quality and efficiency.
- The evidence on the effects of patient choice and provider competition in primary care is more limited, but so far it echoes the findings from the secondary care sector in that distance to the provider is the main driver of patient choice.
- The evidence on the effects of competition in the provision of integrated care for patients with chronic conditions remains too limited to draw firm conclusions at this stage. Whether provider competition is weakened as a result of pursuing integrated care processes depends on various factors related to the generosity of the bundled payments, the extent to which bundled processes restrict patient choice, possible provider consolidation, and strengthened negotiating positions with funders.

Executive summary

There is no consensus among policy-makers on whether provider competition improves health care quality and efficiency

Provider competition has been a feature of health care markets in the USA, but also some European countries such as Germany, the Netherlands and France. Other European countries, such as the UK, Italy and Norway, did not historically feature provider competition but have introduced it over time. Policy-makers in favour of competition in the health sector typically argue that competition among providers within a market has virtuous properties for both quality and efficiency. In other institutional contexts, policy-makers are sceptical of competition and voice concerns that providers operating in a competitive environment will seek to minimize cost and maximize profit by skimping on service quality and reducing access. Competition can also hamper collaboration opportunities across providers and can be seen as a step towards privatization of the health sector. This policy brief reviews the evidence on the effects of provider competition from seven countries in Europe. While it mainly focuses on hospital care, evidence from the primary care and integrated care markets is also analysed.

The evidence base on provider competition in Europe is growing but remains limited

Policies that promote competition are increasingly common in European countries. A body of empirical evidence that evaluates such policies has grown over time but remains limited and is clustered in a small subset of European countries. The evidence is also context dependent as institutional arrangements differ significantly across health systems. There is therefore scope for further research across additional European countries and for exploiting the diversity in institutional arrangements to investigate different aspects of provider competition. A key challenge remains the availability of data to the research community, in particular, in relation to quality measures for large, representative samples of patients. Even for countries for which we have good evidence on the effects of competition on quality, we know less about the mechanisms underlying the effects of competition on quality, costs and the efficiency of providers.

Proximity to provider remains the main driver of patient choice

A prerequisite for hospital competition to work is that patients can choose the provider. Patient demand does appear to change in response to the quality differences across hospitals, but the effects are relatively small. This currently limits the extent to which choice policies can improve patient allocation across providers or effectively raise quality because providers' financial incentives to raise quality is muted by the low responsiveness of the demand side. There is therefore scope for further enhancing public reporting and supporting patients in exercising choice. However, it is not clear that this will in itself lead to more patients making informed and effective choices, or that the costs of providing better information will be outweighed by the benefits. The limited evidence on patient choice also suggests that more educated individuals generally respond more to quality than less educated ones. This may potentially have equity implications as it can increase disparities in health if more educated individuals, facilitated by patient choice, are able to access providers offering higher quality of care. This is an area in which further research is required to quantify such gradients.

Hospital competition can improve some dimensions of quality but not others

The evidence suggests that more competition among hospitals can improve some dimensions of quality, such as heart attack mortality, but the effect does not systematically translate to other quality dimensions for emergency and elective care, and in some cases may even have the unintended effect of reducing quality. More research is needed to open up the "black box" to understand the underlying mechanisms to ensure that competition works more systematically to enhance quality in the hospital sector, and across diverse institutional arrangements.

There appears to be a tension between activity-based payments, that are a prerequisite for competition to work, and expenditure control

A concern about competition under a diagnosis-related group (DRG)-type payment system is that DRGs can encourage excessive increases in care volumes and total hospital spending. One way to address these concerns is to introduce what is known as "mixed" or "blended" payment systems. These combine a fixed budget component with a price which is below the average cost. However, setting DRG prices below average costs might help mitigate excessive incentives to increase volumes; it may also hinder quality competition since hospital profit margins from attracting additional patients will be reduced. Policy-makers should therefore be cautious not to set DRG prices too low.

Hospital mergers require a careful assessment to ensure they bring benefits

Driven by secular reductions in length of stay, hospitals have regularly merged to maintain scale economies, but these mergers can reduce competition and restrict patient choice and access. The scant existing empirical evidence does not suggest that hospital mergers increase quality as claimed by most of the hospitals participating in the mergers. There is therefore a risk that some mergers are allowed without bringing any benefits in terms of quality and at the cost of reduced patient choice, particularly in countries with lower hospital densities. Therefore, hospital mergers require careful assessments to ensure they bring benefits. The challenge for competition authorities remains the assessment of the effects of the proposed merger on quality, both in terms of accessing good information on quality and modelling the effects of the prospective merger. As an alternative to mergers, regulators could encourage hospitals to employ other solutions, such as the establishment of clinical networks or other forms of collaboration in order to achieve synergies.

Public and private providers do not systematically differ in terms of quality and efficiency

The limited empirical literature across European countries does not make a compelling case for either the quality or efficiency of private providers to be generally better compared with public providers, and this is consistent with evidence from other countries. This is an important point because, in the political debates on competition reforms, there are often claims of private providers being more efficient than public ones, and this is a key argument to encourage their entry and competition between public and private providers. An empirical challenge remains to control for patient case mix as private providers may treat less costly patients, biasing the comparison in favour of private hospitals both in terms of quality and efficiency.

In primary care, competition, better information and greater choice have the potential to improve quality and accessibility

General practice differs from hospital care in many respects. Providers are usually small, mainly privately-owned businesses, operating in small geographical markets and with a small number of rivals. But the key issues related to patient choice and provider competition remain the same. Policy-makers can support public reporting to facilitate patient choice of a general practitioner (GP) practice. In turn, free choice can provide an incentive to GPs to compete on quality. The evidence base on patient choice and provider competition in primary care is, however, more limited, but so far this evidence echoes the findings for secondary care in that distance to the provider is the main driver of patient choice.

Provider competition offering integrated care for patients with chronic conditions is possible

Primary care is meant to act as the lead organization in several European countries with the aim of improving coordination of care with other organizations in or outside the health sector for patients with chronic conditions. This typically involves GPs working in teams in larger practices, and patients still being free to choose their GP practice. Primary care providers therefore can potentially compete for patients by offering attractive integrated care arrangements. But whether provider competition is weakened as a result of pursuing integrated care processes depends in principle on different factors related to the generosity of bundled payments, the extent to which bundled processes restrict patient choice, possible provider consolidation and strengthened negotiating positions with funders. The evidence on these issues remains, however, very limited.

POLICY BRIEF

1. Introduction: Why this brief?

Provider competition has been a longstanding feature of health care markets in the USA, and this is also the case for some European countries, such as Germany, the Netherlands and France. Other European countries did not historically feature provider competition but have introduced it over time. In the early 1990s, provider competition was introduced in the National Health Service (NHS) in England under the "internal markets" reforms which separated providers from purchasers of publicly funded health services. Providers had to compete for contracts that were negotiated with the purchasers. Countries, such as Italy, Norway and Portugal, followed suit and introduced elements of competition in the health sector. For example, several European countries have converged to a model where hospitals are paid through a fixed price regime of the diagnosis-related group (DRG) type and patients have some degree of provider choice. However, provider competition is not constrained to the hospital sector – it may also feature in primary care and in integrated care programmes for patients with chronic conditions.

Policy-makers in favour of competition in the health sector typically argue that competition among providers has virtuous properties for both quality and efficiency of care (Siciliani, Chalkley & Gravelle, 2017) (Box 1). If patients can choose the provider, and the "money follows the patient", then a higher degree of competition will give a financial incentive to attract "customers" by increasing quality, which in turn will increase demand and revenues. It also gives incentives to contain costs, inducing providers with higher-than-average costs to downscale on unprofitable activities or to exert higher cost containment efforts, a form of yardstick competition, therefore stimulating innovation. In addition to competition among providers within a market, there can also be competition for the market, in which providers compete for the right to provide a health service or product (e.g. through a tendering process). The idea is that competition for the market can ensure that purchasers buy health services at the lowest costs (Barros et al., 2016).

In other institutional contexts, policy-makers are sceptical of competition and voice concerns that providers operating in a competitive environment will seek to minimize costs and maximize profit by skimping on service quality and/or hampering access. Another common concern is that competition is a step towards privatization of the health sector, therefore harming solidarity, which is at the core of many publicly funded health systems.

Box 1 The briefest of conceptual frameworks about what to expect competition to deliver in health care markets

Competition is a multifaceted process whereby producers strive to attract customers from their rivals by providing a more appealing combination of price and quality. In conventional goods and services markets, this process will lead to greater efficiencies in production to keep prices down, and consumers will benefit via lower prices, products that better suit their needs and a greater variety of products.

Health care markets differ in many ways from conventional markets and lessons from other sectors might not apply. Patients (consumers) are usually insulated from knowing the costs incurred by the third-party payers operating through public or private insurance schemes. If prices used to finance providers are fixed by a regulator and patients have a free choice of provider (with no or small co-payments), then providers will only compete on quality for patients. But patients may find it difficult to judge the quality of health care due to the infrequent use of services or due to the lack of comparable and understandable information. In general, competition among providers may be limited due to natural monopolies and the existence of barriers to entry and exit from the market. Within the context of tendering procedures and competition for the market, there are limits to the ability of purchasers to specify quality dimensions accurately in the tendering process and, after a contract has been awarded, to verify whether the specified quality standards have been met (European Commission, 2021).

In this policy brief we review and analyse policies that are related to provider competition in seven European countries: England, France, Germany, Italy, the Netherlands, Norway and Portugal (Box 2). We start by examining the various dimensions of provider competition in the hospital sector (Section 2.1). First, we look at the extent to which patients are entitled to, and exercise, choice as this is the prerequisite for hospital competition. Second, we discuss whether, as a result of patient choice, competition among hospitals leads to an improvement in quality. Third, we assess if hospital mergers have led to restricted patient choice and access, and if they have affected quality. Fourth, we look at the effects of private involvement, which is often motivated by the desire to improve the efficiency of the health system, in the provision of publicly funded hospital care. For each of these four dimensions of hospital competition, we first present the contextual settings pertaining in the seven countries, followed by a discussion of concepts, the rationale of policy interventions and the possible obstacles to implementation; second, we review the empirical evidence which informs these policy developments.

We then look at two more areas where competition is present in the health sector. We start with primary care and discuss the institutional arrangements, the rationale and the empirical evidence on the extent to which patients can choose their GP, and the extent to which GPs compete for patients based on quality (Section 2.2). Primary care raises distinct issues compared with hospital care given the multitude of providers, their smaller size, the easier entry and their different financial arrangements. We then look at a form of competition for the market with a specific focus on

integrated care for patients with chronic conditions (Section 2.3). This type of competition can be interpreted as a form of selective contracting where the purchaser of health services (a public or private insurer) contracts with a group of practices or providers for the delivery of a range of services, such as those required by patients with chronic conditions. The last section (Section 3) concludes and offers policy recommendations.

Box 2 Methods

The seven countries analysed in this policy brief were chosen to reflect differences in financing arrangements (Bismarck versus Beveridge health systems), provider ownership, regulatory frameworks, gatekeeping arrangements and patient's ability to choose a provider.

We draw on detailed case studies describing policies related to competition in France (Choné, 2017), Germany (Kifmann, 2017), the Netherlands (Schut & Varkevisser, 2017), Norway (Brekke & Straume, 2017) and Portugal (Barros, 2017), which were written by independent academics following a common template as part of a project funded by the Health Foundation, and also draw on an overview of these case studies published in Health Policy (Siciliani, Chalkley & Gravelle, 2017). We complement these studies with evidence from England, Italy and, if relevant, from the USA. We cover the USA because competition across providers has been pervasive there due to the existence of a strong private health insurance market, and its effects on quality have been well documented over a long period of time. However, the US health system differs in many respects from the European health systems: public insurance is not universal; provision is more fragmented, with private provision being more prominent; and high spending and overtreatment remains a key policy concern compared with several European countries with more limited health spending.

We restrict our focus mostly on competition among publicly funded providers, and do not discuss competition among insurers. The latter applies only to countries such as Czechia, Germany, the Netherlands and Switzerland, where insurers compete for patients. We are careful not to use the term "competition policy" because this is often synonymous with controls over mergers based on antitrust law. Instead, we refer more broadly to policies that enhance competition, such as relaxing constraints on patient choice of provider or encouraging providers to compete on quality.

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2. What do we know about the scope and effects of provider competition across seven European countries?

Table 1 gives a brief overview of the salient features of health care systems in the countries covered in this policy brief and the extent to which policies to increase competition are present in these countries. This table does not set out the extent to which these policies have been used in practice, which is discussed in more detail below, drawing on the existing empirical evidence. For example, although a country may have an extensive patient choice policy where patients can access any provider, and which is supported by quality indicators in the public domain, very few patients may exercise this choice in practice or make an informed choice.

2.1. Provider competition in hospital care

What is the scope of provider competition in hospital care?

Are patients free to choose their hospital? And is choice facilitated by public reporting?

The existence of patient choice of provider is a precondition for competition between providers. If patients are not allowed to choose the provider, then hospitals' incentives to increase quality and attract patients may be diminished. However, if patients are allowed to choose provider, there is no guarantee that they will actually do so. This is because patient choice may be rendered ineffective if patients lack information on the quality of the provider or have limited information. Hence policies, such as public reporting, that provide quality indicators in the public domain support patient choice. Public reporting is, however, not the only mechanism behind patient choice as patients can still act on information on quality informally through word of mouth for hospitals that have established a good reputation over the years.

Table 1: Overview of the policy context that may promote provider competition

	ENGLAND	FRANCE	GERMANY	ITALY	NETHERLANDS	NORWAY	PORTUGAL
HOSPITAL CARE							
Are patients free to choose their hospital?	Yes	Yes	Yes	Yes	Yes	Yes	No
Do hospitals compete on quality?	Yes	Yes	Yes	Yes	Yes	Yes	Limited
Do hospitals compete on prices?	No	No	No	No	Yes	No	No
What is the extent of private provision in hospital care?	Limited but increasing	Extensive	Extensive	Varies by region	Extensive	Limited	Limited but increasing
PRIMARY CARE							
Are patients free to choose GP?	Yes	Yes	Yes	Yes	Restricted	Yes	Limited by the shortage of GPs
SELECTIVE CONTRACTING FOR INTEGRATED CARE							
Is there selective contracting aimed at patients with chronic conditions allowed?	Yes	No	Yes	No	Yes	No	No

Source: Authors.

Patients are free to choose hospitals in all countries covered in this brief, except for **Portugal** where patients are generally restricted to their local hospital and there is limited information on hospital performance (Barros, 2017). In **England** before 2006, the choice of hospitals for elective hospital treatment was generally constrained to the set of local NHS hospitals that had contracts with the patient's local health authority. In 2006, constraints on the choice of provider were relaxed with patients being offered a choice of at least four providers, including one from the private sector, and from 2008 they could choose any qualified provider irrespective of where they are located. To facilitate choice, quality indicators have been increasingly made available in the public domain. On the NHS Choices website, patients can access information on risk-adjusted mortality rates, infection control and cleanliness, user ratings and food choices. For specific treatments, such as hip replacement, they can access data on waiting times (from GP referral to treatment), volumes of treated patients, rates of hip revision surgeries and other indicators (www.nhs.uk). **France** and **Germany** have had a long tradition of extensive hospital choice. In France, health outcomes, such as mortality rates, are not reported. This is due to concerns that mortality rates may not necessarily reflect hospital quality if the hospitals with higher quality also treat higher numbers of severe patients (which would then translate into higher mortality if severity is not adequately captured by the risk adjustment). By contrast, over 450 process indicators pertaining to quality (e.g. hospital-acquired infections) and activity (e.g. number of hospital admissions or length of stay) are publicly available via a dedicated website (www.scopesante.fr) supported by an independent public body. In 2015, the site had 340 000 visitors (Choné, 2017). In Germany, quality reporting is limited despite extensive patient choice (Kifman, 2017). In 2015, the government in the **Netherlands** introduced mandatory publication of hospital waiting times, standardized mortality ratios and other outcomes, though certain insurance policies restrict provider choice to some extent (Schut & Varkevisser, 2017). **Norway** introduced patient choice in 2001 and further facilitated it in 2015 by removing constraints on hospital volumes and allowing private providers to treat publicly funded patients. There is information on waiting times for selected procedures and, since 2012, some quality indicators (Brekke & Straume, 2017). In **Italy** patients are free to choose any public health care provider, even outside their local health authority or region, and any private provider which is accredited to offer care to the National Health Service (Ferré et al., 2014).

Do hospitals compete on quality (and prices, if these are not regulated)?

There is scope for hospitals to compete on quality for publicly funded patients in the seven countries, except for **Portugal** where the choice of hospital is restricted. Hospital competition is generally facilitated by activity-based payment systems, often based on DRGs, where hospitals are reimbursed for each patient treated. However, in all countries except for the Netherlands, hospitals cannot compete on prices because these are regulated under various forms of fixed price regulation. An internal market was introduced in **England** in the 1990s in which purchasers (local health authorities) were separated from the providers (the hospitals). Most contracts took the form of block contracts or cost and volume contracts. Hospital prices could be negotiated, and purchasers had limited information on quality apart from waiting times. Since 2003/4, a fixed pricing system based on DRGs – known as Payment by Results – has been introduced. Initially. it covered only 15 treatments but now it covers around 60% of acute hospital activity (Farrar et al., 2009; Department of Health, 2012). From 2003/4, hospitals could also apply for foundation trust status, which gives them greater financial flexibility and control over operational decisions (Marini et al., 2008). Various choice reforms (see above) further expanded the scope for competition. However, it appears that in recent years, concerns over expenditure have led commissioners to make increased use of volume caps or reduced tariffs for volumes in excess of expected ones (Allen & Petsoulas, 2016). There is also limited scope for entry and exit, and commissioners retain some discretion in allocating resources between providers to ensure their sustainability, which in turn might undermine the effectiveness of competition in driving performance (Appleby et al., 2012; PricewaterhouseCoopers LL, 2012). More broadly, the focus of policy developments has switched from competition towards integrated care models (see Section 2.3).

In **France**, where private hospitals account for 60% of treatment volume, revenues of public hospitals were determined administratively on a historical basis before 2005. A DRG system covering both public and private hospitals was phased in between 2005 and 2008. In the **Netherlands**, hospital competition has been a feature since 2000 when DRG payments replaced fixed budgets. In contrast with the other countries reviewed in this brief, prices are negotiated with health insurers for the majority of treatments. Initially, the negotiated share was only 10% in 2005, but then it was gradually expanded to 70% in 2012 to allow health insurers to compete more effectively on price. For the remaining 30%, the Dutch Healthcare Authority establishes maximum prices. This includes care for which competition is deemed unfeasible, such as emergency care (not plannable) or organ transplantation (too few providers) (Kroneman et al., 2016). Insurers can in principle engage in selective contracting with hospitals and form limited provider networks to obtain more favourable prices and ensure quality.

In **Germany**, hospitals are paid on the basis of DRGs. These DRG-based tariffs vary by state and are determined by state-level collective negotiations between sickness funds and hospitals. Payers and providers are organized in corporatist bodies. Sickness funds negotiate with individual hospitals on the services they provide and their quantities. In **Norway**, hospitals have been paid by DRG pricing since 1997 as part of a mixed payment system in which the price initially covered only 30% of treatment costs. This share increased to 40% in 1998, has since fluctuated between 40% and 60%, and has stabilized at 50%. Hospitals also receive a block grant based on the population demographics of their health region. DRG pricing initially covered only inpatient care by public hospitals and was later extended to outpatient care

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and private providers. Direct competition for patients was only possible after the 2001 patient choice reform. In 2002, the ownership of public hospitals was transferred from the county to the higher-state level and hospitals were given more autonomy and independence. Although hospitals are state-owned, decision-making is decentralized to hospitals, which are more likely to respond to competition.

In **Italy**, secondary care is delivered either directly by the local health authorities through the hospitals they own or by public hospital enterprises that benefit from higher degrees of financial autonomy. In the latter case, local health authorities act as purchasers of services in a quasi-market. It is up to each region to decide whether they want to adopt a purchaser–provider split, and different regions have adopted different models. For instance, Tuscany decided to keep the system heavily centralized, with most hospitals remaining under the control of local health authorities. However, in Lombardy, public and private accredited hospitals compete for patients. Payment rates for hospital and outpatient care are also determined by each region with national rates set by the Ministry of Health as a reference. Payment for hospital care is generally based on DRG tariffs, though it can be complemented with block grants or global budget. Over the years, regional policies have limited the extent of competition between providers through caps and targets for each provider. However, competition remains strong for patients seeking care outside their region of residence, with significant flows of resources between regions, especially from the south to the north and the centre (Ferré et al., 2014).

In **Portugal**, public hospitals are funded by global budgets calculated on the basis of predicted patient volumes and predetermined DRG prices so that hospital revenue does not vary with the number of patients treated. Public hospitals have regional catchment areas with access defined by citizens' residence locations. Choice for highly specialized care may be mediated by specialists. Since 2012, patients waiting longer than a predetermined time within a public hospital can choose another accredited public or private hospital.

The information presented above shows that, with the exception of the Netherlands, hospitals in the other countries analysed in this brief are paid by regulated prices (DRG pricing). The policy idea behind regulated prices is that it will motivate hospitals to compete for patients by raising quality to increase their revenues, because each additional patient brings additional revenue. Some economic models confirm this conjecture and show that when providers face regulated prices, greater competition makes the demand more responsive to quality, and, as long as providers face a positive price mark-up (price minus the cost of treating an additional patient), this gives a stronger incentive to compete on quality (Gaynor, 2007; Brekke et al., 2014). The studies therefore highlight that it is not the additional revenue that matters but the additional profit, which takes costs – not only revenues – into account. If prices are not fixed, then the effect of competition on quality is ambiguous: more competition reduces prices, which dampens the positive direct effect of competition on quality.

Even when prices are fixed, other economic models show that the effect of competition on quality is more nuanced once additional features are taken into account. Hospitals, and more broadly health care providers, are driven by altruistic motives and care about the patients they treat and/or the quality of care they provide (Brekke, Siciliani & Straume, 2011). Moreover, public hospitals or private non-profit hospitals often have constraints on appropriating profits. Public hospitals also face soft budget constraints (Brekke, Siciliani & Straume, 2015). These factors make the providers less sensitive to changes in revenues, and therefore reduce the financial incentive of providers to compete on quality to attract patients.

Moreover, even the presumption that the price mark-up is positive can be questioned within health systems with larger excess demand and capacity constraints. For example, several European countries have long waiting times and waiting lists for medical procedures. Why would hospitals in such settings strive to attract more patients when they are already struggling to satisfy existing demand? If providers are effectively working at a negative profit margin, the competition may be to avoid rather than attract patients, and this could lead to quality reductions rather than quality improvements (Brekke, Siciliani & Straume, 2008). Regarding costs, although competition can strengthen provider incentives to reduce costs through "yardstick competition", where providers with higher costs will have to scale down on unprofitable treatments or make greater efforts to control costs, rules regarding the distribution of profits and soft budget constraints may dilute such incentives (Shleifer & Dixon, 1985). Moreover, incentives to keep costs down are also inherent of any payment system which has a prospective element (a fixed budget, a fixed price or a capitation system) regardless of whether there is competition among providers.

Perhaps as a result of these features of the hospital sector, the introduction of hospital competition under DRG pricing has not been without controversy. A common criticism of competition under a DRG-type payment system is that DRGs can encourage excessive increases in volumes and total hospital spending (as substantiated with evidence from several European countries) (Street et al., 2011), which in turn can create tension between stimulating competition on quality and controlling expenditure. This is exemplified in the Netherlands where concerns over expenditure control at a time of financial restraints have led to the introduction of a "macro budget instrument", whereby the government can require hospitals to repay excess revenues in proportion to their market shares if the target expenditure for the hospital sector is exceeded. Health insurers have also introduced expenditure caps for hospitals, reducing hospitals' incentives to compete on quality (Schut & Varkevisser, 2017). Similar concerns have been raised in England where commissioners increasingly attempt to control hospital expenditure by imposing volume caps and reducing the tariff when volumes are higher than expected. One way to reduce the concern over excessive volumes is to introduce mixed or blended payment systems, which combine a fixed budget component with prices that are below the average cost (as in Norway, and more recently in England). DRG prices that are below the average costs might help mitigate excessive incentives to

increase volumes, a common concern with DRG systems, but will also hinder quality competition since hospital profit margins from attracting additional patients are reduced. Therefore, DRG prices cannot be set too low. An alternative solution is to introduce staggered reductions in the per-patient tariff as the volume increases (e.g. going from 100% of average tariff to 80% for volume in excess of a predetermined volume threshold 1, 70% for a higher predetermined threshold 2, 60% for threshold 3, etc.), but with the tariff always remaining at or above the marginal cost to avoid the perverse incentive generated by financial losses when attracting additional patients.

Another criticism is that competition hampers cooperation and coordination of services between different providers and may not always sit well with current trends of care integration and concentration of specialist care (Kroneman et al., 2016) (see Section 2.3). This is exemplified by the debate in France where critics suggested that competition would reduce coordination and synergies among providers, leading to missed opportunities to improve quality and reduce costs. In response, a new policy tool was introduced in 2016 – known as "groupement hospitalier de territoire" – to foster cooperation and integration of public hospitals. Under this policy, each hospital has to join a group associated with a teaching hospital, and can share activities, equipment, medical teams and a joint information system (Choné, 2017).

Are hospital mergers allowed?

Within the hospital sector, mergers have been common in several countries, and few mergers of health care providers are actually blocked. The Competition and Markets Authority (CMA) in **England** assessed six hospital mergers up to July 2015 and stopped one in 2013 after a detailed investigation (Spencelayh & Dixon, 2014). There are, however, plans to exempt future mergers between NHS hospitals from CMA review, and these will instead be the responsibility of one of the regulators of the health sector in England (Department of Health and Social Care, 2021). Out of the 223 general hospitals in England in 1997, 112 merged between 1997 and 2006. In the **Netherlands**, up to 2018, 33 out of 34 hospital mergers were cleared after an initial or substantial assessment. In **France**, 90 mergers were cleared between 1995 and 2011 without detailed investigation. These concerned private, mostly small or medium-sized hospitals, and no merger involved a public hospital. In **Germany**, 182 mergers were approved between 2004 and 2014 and seven were prohibited.

Across the countries reviewed, the main criterion applied by the regulators approving hospital mergers is the extent to which the market will remain competitive following the merger (Schmid & Varkevisser, 2016). If there are sufficient numbers of competitors, allowing for competition and patient choice, the merger is very likely to be cleared. For example, in **Germany**, mergers will be prohibited if the merged hospitals obtain more than 40% market share or if the merger leads to significant concentration (three or fewer hospitals with a combined market share of 50% or more, or five or fewer hospitals with a combined market share of 66% or more). In the **Netherlands**, the competition authority assesses if a dominant position arises that appreciably restricts competition. In **France,** the competition authority computes the local market shares of merging parties. In areas with few private providers, the competitive pressure exercised from public hospitals to private hospitals has been considered sufficient to maintain quality competition across hospitals, whether public or private. In **England**, mergers will be authorized only if they are in the overall interest of the patient, with an emphasis on clinical quality. The CMA's review process is designed to examine both the benefits and the potential adverse effects for patients following a merger (CMA, 2014). In **Norway**, competition law does not apply to state-owned health enterprises, but only to the (small number of) private non-profit or for-profit hospitals. Similarly, in **Portugal**, hospital mergers in the NHS are seen as administrative acts. The competition authority only has jurisdiction over private hospitals, which are mostly small, located in medium-sized cities and owned by large groups. Mergers of private hospitals were located in different regions serving different markets and populations and had no impact on market concentration, raising no concerns over reduced competition.

Hospital mergers potentially bring the benefits of synergies and scale economies, where costs are reduced as a result of the larger scale of the new, merged organization. Merging hospitals will usually claim that the merger will improve collaboration and, as a result, improve services and increase quality, or that economies of scale will allow hospitals to improve financial performance, through reduced costs and achieve productivity gains. Mergers can also provide an opportunity for rationalizing hospital configuration, particularly in countries with a large stock of hospital beds and with excessive numbers of small providers which are not able to exploit scale economies.

However, mergers can also increase the market power of merged hospitals and reduce patient choice, which is the typical concern of antitrust authorities. In turn, the reduction in competition might lead to reduced quality and fewer services being provided to patients (Brekke, Siciliani & Straume, 2017). Mergers can make it more difficult for patients to access services due to longer distances or fewer services. In countries where prices are not fixed, as in the Netherlands, the concern is that merged hospitals may benefit by negotiating higher prices (Brekke, Siciliani & Straume, 2017).

The extent to which hospital mergers are able to exploit synergies and scale economies is likely to depend on the market structure and the institutional setting. For example, France and Germany have a large number of smaller hospitals compared with England or the Netherlands. Countries differ in hospital densities and distributions, with France having a high number of hospitals (more than 1 000), whereas the Netherlands has a relatively low number, which is declining (81 in 2015). Depending on this starting point, hospital mergers may be opposed in some countries and welcomed in others. Regulators may be more lenient in approving mergers in countries with perceived excess capacity and a large number of hospitals, where mergers

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between small hospitals may be seen as a way to rationalize existing capacities, especially if there are concerns that small hospitals are not delivering high-quality services due to their inability to exploit learning-by-doing effects or synergies across services.

What is the extent of private provision in hospital care?

Private providers can compete with public providers for publicly funded patients. The mix of public and private providers treating publicly insured patients varies greatly across European countries (Table 1). This diversity in provider mix is pronounced in France and Germany. In **France**, private hospitals provide 60% of surgical treatments. In **Germany**, about 30% of hospitals are public, 35% are private non-profit hospitals and 35% are for-profit hospitals, with many owned by private hospital chains. Several countries, including England, Norway and Finland, have expanded or are planning to expand the involvement of private providers, either the existing providers or new ones. In England and Norway, the provision is dominated by public hospitals, but private providers have increasingly entered the market. In **Norway**, most hospitals are public with only a few private non-profit hospitals. Some private for-profit hospitals have contracts with the NHS for specific treatments. In **England**, private hospitals and other independent sector providers have been allowed to enter the NHS for elective care from 2003 onwards, with the aim of expanding capacity and reducing waiting times. The role of private providers was further expanded in 2006 to extend patient choice and stimulate competition (Naylor & Gregory, 2009). By 2010, private providers treated 4% of NHS elective patients and focused on a small number of high-volume procedures (Hawkes, 2012). In 2013, 10.8% of the total commissioners' expenditure was used to purchase care from non-NHS providers (Spencelayh, 2015). The proportion of NHS patients having hip replacements in private hospitals increased from 0% in 2002 to over 20% in 2012 (Moscelli et al., 2016). In the **Netherlands**, the provision is skewed in the other direction. All hospitals have a private non-profit status. In **Portugal**, private providers can provide services to both publicly funded and privately funded patients. In **Italy**, accredited private providers compete with public providers for publicly funded patients. The mix between public and private providers can differ significantly across regions. Regions with a relatively high level of private care include Lazio, Campania, Molise and Lombardy with around 30% of total hospitalizations supplied by private providers (Ferré et al., 2014).

The diversity in the mix of public and private provision raises several policy issues. The willingness of a public funder to contract private providers, in addition to public ones, depends on the quality and efficiency of these providers. Some economic models show that private providers should have stronger incentives to contain costs, but whether they provide higher or lower quality depends on at least two forces going in opposite directions. On the one hand, private providers may skimp on quality to increase profits; on the other, in the presence of a for-profit motive, they might compete more aggressively to attract patients by improving quality (Brekke, Siciliani & Straume, 2012; Sloan, 2000; Glaeser & Shleifer, 2001).

If one type of provision was superior to the other in terms of quality and efficiency, governments could mandate it. Alternatively, entry of private providers could be encouraged in response to a need to expand capacity rapidly, but this raises issues on how entry should be regulated; how private providers should be paid, and what quality and services they should provide in return; and how to coordinate provision across various services (e.g. in relation to emergencies).

In the past, several countries, such as France and Germany, differentiated payments for public and private hospitals (e.g. block budgets versus fee-for-service), but in recent years payment has become more uniform (usually on a DRG-type basis). But even under a DRG-type payment system, policy-makers must decide whether to set the same prices for public and private providers. In France, DRG prices are higher for public hospitals. Private hospitals have argued that this differential payment breaches European state aid law (Schut & Varkevisser, 2017). In England, more favourable contracts were initially offered to new private providers (known as independent sector treatment centres) as part of a national procurement programme to diversify the market, but now both NHS and independent sector providers receive the same DRG payment (where fixed prices apply). Public and private providers differ in a number of dimensions, which could lead to differences in costs for reasons outside of their control (Mason et al., 2009) such as different obligations (e.g. the provision of an emergency department in public hospitals), regulatory constraints (VAT, pension contributions, access to capital), and performance management regimens. When contracting with private providers, such differences need to be taken into account and, if the purchaser agrees on a differential price across types of provider, the purchaser needs to assess whether the additional expenses or savings are compensated by the higher quality.

What do we know about the effects of provider competition in hospital care?

Quality of care and patient choice

For competition between health care providers to be effective, one prerequisite is that patients can choose their preferred hospital so that demand responds to quality. Several empirical studies reviewed in this section have investigated the extent to which the individual patient choice of a hospital depends on the quality provided. In other words, the studies investigated if hospitals with higher quality attracted more patients and therefore have a higher demand or proportion of patients. There is some evidence from **England** that, following the introduction of choice policies, patients are more likely to choose based on quality. Following the introduction of choice reforms in 2006, patients having coronary artery by-passes were more likely to choose hospitals with lower condition-specific mortality rates (Gaynor, Propper & Seiler, 2016). Similarly, patients having hip replacements were more likely to choose hospitals with lower readmission rates (Moscelli et al., 2016), greater health gains, as measured by patient-reported outcome measures (PROMs) (Gutacker et al., 2016), lower overall mortality rates and lower methicillin-resistant *Staphylococcus aureus* (MRSA) infection rates (Beckert, Christensen & Collyer, 2012).

The responsiveness of demand to quality remains low, however, and proximity to provider remains the most important driver of patient choice of provider (Dixon et al., 2010). In **Germany**, there is evidence that expectant mothers are willing to travel to give birth in maternity clinics with higher reported quality as measured by clinical indicators and satisfaction scores (Avdic, 2019). Patients having coronary artery by-passes are willing to travel further to hospitals with better reputations (Pilny & Mennicken, 2014). Colorectal resection patients are willing to travel for longer for more specialized hospitals, while knee replacement patients travel longer for hospitals with better service quality and higher procedure volume (Kuklinski, Vogel & Geissler, 2021). In the **Netherlands**, there is evidence that patients having angioplasty are more likely to choose hospitals with a good (overall and cardiology) reputation and with low readmission rates after treatment for heart failure (Varkevisser, van der Geest & Schut, 2012). Patient choice of hospital for hip replacements is affected by information in the public domain on reputation and waiting times, as well as travel time (Beukers, Kemp & Varkevisser, 2014). In **Norway**, there is evidence that half of patients bypassing their local hospital do so under their own initiative (as opposed to, for example, the GP's initiative), especially the better educated (Brekke & Straume, 2016). In **Italy**, there is evidence that patients in need of an angioplasty are willing to travel further to avoid longer waiting times and clinical quality (mortality), with stronger effects of quality for more severe patients (Bruni, Ugolini & Verzulli, 2021).

These general findings are also consistent with US studies (Gaynor & Town, 2011). While hospitals with higher quality are rewarded with more patients, the response of demand for higher quality is relatively small, and distance to hospital remains the key determinant of patient choice. The evidence also suggests that patients with higher socioeconomic status are more likely to exercise choice. In all studies, distance to the hospital remains a strong predictor of hospital choice. Although the empirical literature on patient choice can tell whether hospital demand depends on quality, more needs to be done to unpack the mechanisms through which higher quality affects patient choice. Several mechanisms could be at work, such as GPs making the choice on the patient's behalf, the patient making the choice based on public information or the patient making the choice based on informal information about providers' reputations.

Hospital concentration and quality of care

Other studies have empirically tested whether hospitals that are located in areas with more providers offer higher quality of care, and whether this effect is enhanced when patient choice policies have been promoted. In contrast to the evidence presented in the previous section, these studies look at whether competition (e.g. related to the number of hospitals) affects quality, rather than whether quality affects patient choice of provider.

There is evidence from the NHS in **England** suggesting that competition between providers enhances quality, as measured by the reduction in heart attack mortality, if hospital tariffs (the price paid by the funder to the hospital) are fixed (Bloom et al., 2015). Some of the studies exploit the expansion of patient choice in 2006 (Cooper et al., 2011; Gaynor, Moreno-Serra & Propper, 2013). They test whether hospitals in areas with more providers, therefore facing more competition from other providers, improved outcomes more quickly when the patient choice policy was expanded relative to areas with fewer hospitals. Using similar methodologies, two other studies found that competition reduced hip fracture mortality, in addition to heart attack mortality, but had no effect on stroke mortality (Moscelli et al., 2018a), had no effect on coronary artery bypass mortality and emergency readmission rates, and increased hip and knee replacement emergency readmission rates (Moscelli, Gravelle & Siciliani, 2021). More research is required to understand the mechanisms behind these results, though one study shows that reductions in heart attack mortality were achieved through the improved management of services (Bloom et al., 2015). Earlier studies in England found that competition increased heart attack mortality when the tariffs paid by the purchasers to the hospitals were not fixed (Propper, Burgess & Green, 2004; Propper, Burgess & Gossage, 2008), and reduced waiting times (Propper, Burgess & Gossage, 2000) in the 1990s when purchasers negotiated with hospitals mostly on price and waiting times), and did not have access to good clinical quality indicators. There is also evidence that hospitals' quality responds positively to the quality of providers located nearby for some clinical indicators (such as overall and stroke mortality rates, knee replacement and stroke readmissions, and indicators of patient experience) but not others (Gravelle, Santos & Siciliani, 2014), while this is not the case for efficiency indicators (Longo et al., 2017). There is also some evidence that competition by private providers treating publicly funded patients increases efficiency, as measured by a reduction in the preoperative length of stay for patients having hip and knee replacements, though the private providers treated healthier patients leaving the sicker patients to the public hospitals (Cooper, Gibbons & Skellern, 2018).

In **France**, before the introduction of the DRG-based payment, admissions grew less rapidly in public hospitals than in private hospitals, though after its introduction this trend was reversed (Choné et al., 2013). Moreover, there is evidence that public hospitals exposed to competition from private hospitals reduced their average length of patient stay, whereas there was no such reduction for public hospitals without private competitors. There is also evidence that, for public hospitals, patients were willing to travel further (Choné & Wilner, 2015), and that non-profit hospitals, which have managerial autonomy, exhibited larger declines in mortality in more competitive areas (Gobillon & Milcent. 2017). One study focused on surgical procedures for breast cancer (breast reconstruction after mastectomy and sentinel lymph node biopsy) and showed that the likelihood of receiving these procedures is higher in hospitals located in more competitive markets (Or et al., 2022).

In **Norway**, the introduction of DRG pricing in 1997 led to gains in technical efficiencies and increases in volume (Biørn, 1992). The 2001 patient choice reform and greater hospital autonomy after 2002 further stimulated activity, leading to

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larger hospital deficits (Tjerbo & Hagen, 2009). A study found that patients who had made a choice to bypass their local hospitals in 2004 waited on average 11 weeks less than those who did not bypass their local hospitals (Ringard & Hagen, 2011). There is also evidence suggesting that following the 2001 choice reform, hospitals facing a more competitive environment (as measured by more providers in the hospital catchment area) had lower heart attack mortality rates relative to hospitals facing a less competitive environment; the study, however, found no effect on stroke mortality. There is also evidence suggesting that, following the 2001 choice reform, hospitals facing a more competitive environment (as measured by more providers in the hospital catchment area) had a sharper reduction in acute myocardial infarction (AMI) mortality but no effect on stroke mortality; the study also found that exposure to competition reduces all-cause mortality, shortens length of stay, but increases readmissions, though these effects are small in magnitude. In years with high (DRG) prices, the negative effect on readmissions almost vanishes (Brekke et al., 2021).

In the **Netherlands**, where prices are negotiated for most treatments, the hospital price-cost margin was lower in areas where insurers had larger, or hospitals had smaller, market shares (Halbersma et al., 2011). For cataract surgery, however, provider concentration did not affect negotiated prices or quality (Heijink, Mosca & Westert, 2013), and substantive price variations between hospitals persist for the same treatments (Douven, Burger & Schut, 2020). For hip replacement, a study found no evidence that price deregulation in a competitive environment (where hospitals are located close to several other hospitals) reduced quality as measured by readmission rates (Roos et al., 2020). In **Italy**, there is evidence that competition did not affect quality as measured by an index based on mortality and readmissions (Berta et al., 2016), but hospital quality is positively associated with the quality of competing hospitals (Lisi et al., 2021).

The evidence on hospital competition on quality in the USA is mixed. A first seminal study in 2000 suggested that competition reduced heart attack mortality and costs after a DRG system was introduced, but increased costs when hospitals were reimbursed (Kessler & McClellan, 2000). A second study confirmed the positive effect of competition on quality, but the findings suggest that this is concentrated in high-severity patients (Kessler & Geppert, 2005). A third study found that competition reduced quality (Gowrisankaran & Town, 2003); a fourth study had mixed results (Shen, 2003); and a fifth one found no effect (Mukamel, Zwanziger & Tomaszewski, 2001).

To summarize, there is a growing amount of literature from European countries on the effects of competition among publicly funded hospitals. Although several studies identify several positive effects of competition, the results are far from clear cut as several studies also point towards no effects or in some cases towards negative effects.

Hospital mergers

There is very limited evidence across European countries on the effects of hospital mergers. One study investigated the effect of a wave of hospital mergers in **England** between 1997 and 2006 when 123 hospitals merged. It found that mergers in England did not affect clinical quality, productivity, financial performance but did reduce activity and staffing, and increased waiting times (Gaynor, Laudicella & Propper, 2012). An older study from **Norway** found that mergers showed no significant effect on efficiency, except for one merger where several hospitals were involved, leading to a reduction in costs due to centralization of administration and acute services (Kjekshus & Hagen, 2007).

In the USA, there is evidence that mergers do not affect clinical quality for most of the indicators used in empirical analyses (Capps, 2005; Romano & Balan, 2011). One study found that mergers did not affect heart attack and stroke mortality, but increased readmission rates and early discharges for neonates (Ho & Hamilton, 2000). Another study of 42 mergers in 16 states found that mergers did not affect quality in the majority of cases and, in the other cases, quality sometimes increased and sometimes decreased (Mutter, Romano & Wong, 2011). Hospital mergers have also, in most cases, led to cost reductions (Dranove & Lindrooth, 2003; Alexander, Halpern & Lee, 1996; Harrison, 2011; Schmitt, 2017).

Although the evidence is limited, the existing studies do not suggest that hospital mergers improve quality (and neither reduce it) but can lead to cost reductions due to internal reorganization of the merged hospitals.

Differences in quality and costs between private and public hospitals

The evidence on differences between public and private hospitals in European countries is growing. In **Germany**, there is evidence that private and public hospitals have similar costs under DRG payments (Herr, Schmitz & Augurzky, 2011), but private providers exhibited higher costs under the previous payment system, which was based on per diem payments, therefore rewarding longer lengths of hospital stay (Herr, 2008; Tiemann, Schreyögg & Busse, 2012). There is also evidence that private hospitals have a lower probability of default than public ones (Augurzky et al., 2021), and that private for-profit hospitals adapt to (increasing or decreasing) demand more quickly than public and private non-profit hospitals (Schwierz, 2011).

In **France**, public and private non-profit hospitals have the same case-mix-adjusted heart attack mortality, but for-profit private hospitals have lower mortality (Milcent, 2005). In **Norway**, there is evidence that private non-profit hospitals have shorter lengths of stay for cardiovascular procedures, after controlling for some dimensions of case mix, and they tend to specialize in specific procedures such as angioplasty and coronary bypass (Bjorvatn, 2018).

There is evidence that patients in **England** appear equally satisfied with public and private (independent sector) providers (Pérotin et al., 2013), and have similar readmission rates across a range of elective procedures (Moscelli et al., 2018b); private providers treat fewer patients with complex conditions (Mason, Street & Verzulli, 2010; Street et al., 2010) and patients having hip replacements through private providers have better health outcomes (Turner, Nikolova & Sutton, 2014) and shorter lengths of stay (Siciliani, Sivey & Street, 2013).

In **Italy**, there is evidence that public and private hospitals do not differ in 30-day mortality rates for hip fracture, stroke and coronary bypass and 30-day readmission rates for elective hip and knee replacements, while private providers have a lower heart attack mortality rate (Moscone et al., 2020). There is also evidence that private non-profit hospitals do not differ in efficiency relative to public hospitals since the introduction of the DRG system (Barbetta, Turati & Zago, 2007), while private for-profit hospitals are less efficient than not-for-profit and public hospitals (Berta et al., 2010), in part due to higher nurse-per-bed ratios (Daidone & D'Amico, 2009). No evidence is available for the Netherlands given that all hospitals are private non-profit hospitals.

The extensive empirical evidence from a review study on hospitals in the USA (Eggleston et al., 2008) showed mixed results about quality in for-profit and public hospitals depending on the region, data source and the period of analysis. For-profit private hospitals in the USA have a stronger incentive to "upcode", i.e. to classify patients in more profitable tariffs/DRGs (Dafny, 2005; Silverman & Skinner, 2004) and to select patients with less severe conditions (Duggan, 2002). An old review of 317 published papers across a range of countries cautiously concluded that public and non-profit hospitals tend to be more efficient than for-profit ones (Hollingsworth, 2008).

In summary, although limited, the evidence does not suggest that one type of provider systematically performs better, with several studies suggesting no differences.

2.2. Provider competition in primary care

What is the scope of provider competition in primary care?

The extent of GP choice and competition varies across European countries. GP choice and competition has been a longstanding systemic feature in France and Germany. In these two countries, some forms of GP gatekeeping have only been encouraged recently. In **France**, there is no list system and no restrictions on patient choice of GP. Two thirds of GPs are self-employed and paid by fee-for-service, so that GPs who attract more patients have higher revenues. Most GPs are required to charge regulated fees, but some are permitted to charge above the regulated level, which further contributes to their revenues and affects incentives to compete (Choné, 2017). In **Germany**, patients have free choice of GPs and specialists and can access specialists directly without referrals from GPs. Therefore, GPs do not act as gatekeepers. Solo practices are still the dominant setting in primary care, but there has been a trend towards group practices and GPs working in interdisciplinary medical care centres. From 2007 sickness funds have offered "gatekeeping contracts" with a partner organization representing more than 50% of GPs in an area, in some cases with bonuses to comply with gatekeeping rules, and with the aim of improving coordination of care and contain costs. In 2016, there were 91 partner organizations, involving 16 500 GPs and covering 4 million individuals. These contracts involve a mix of capitation and fee-for-service payments (Kifmann, 2017).

In other countries, such as England, Norway and Portugal, the scope for GP choice and competition has expanded over time. In **England**, patients must register with a general practice, which acts as gatekeeper for elective hospital care. Patients do not pay for general practice (though a small charge is levied on about 10% of dispensed drugs). General practice revenue varies mainly with the number of patients via capitation and quality incentives. Patients have a free choice of GP, but this is constrained by the fact that general practices restrict access to their list by agreeing catchment areas with the local health authority and also by temporarily closing their lists. Patients can choose any practice in the catchment area they live in that does not have a closed list. From 2015, practices have been able to accept patients outside their catchment area without the obligation to make home visits, but as yet there has been no analysis to show the extent to which patients or practices have exercised this option. Patients can access information on the quality and facilities of practices from the NHS Choices website. The barriers to establishing a new practice and expanding an existing practice are significant in England (and in the UK as a whole). Restrictions to the sale of intangible assets (i.e. goodwill) are also a significant barrier to exit. Until 2002, the number and location of practices was regulated by a national body and, on its abolition, control of entry was passed to the local health authority (Siciliani, Chalkley & Gravelle, 2017).

In **Norway,** since 2001, individuals have been able to freely choose their GP and change GP up to twice a year. GPs, who act as gatekeepers, can fix their list size between 500 to 2 500 patients and refuse additional patients once their set size is reached. The GP choice reform was accompanied by a change in payment so that GPs are paid by capitation plus fee-for-service for consultations and other services. Capitation accounts for 30% of each GP's income with fee-for-service payments accounting for the remaining 70%. Patients face co-payments (Brekke & Straume, 2017). In **Portugal**, patients are free to choose a GP if there is space on their list. Choice is, however, severely constrained by GP shortages with some patients not being able to register with a GP. Given that GPs act as gatekeepers, patients attend hospital emergency departments to access secondary care (Barros, 2017). In **Italy**, patients are free to choose their GP among those working in their local health authority. Individuals cannot switch GPs for at least 12 months, and their current registration is automatically extended if there is no explicit withdrawal. However, GPs must accept all patients and can only refuse a patient or remove them from their list due to exceptional and proven reasons of incompatibility. GPs are self-employed and paid mostly by capitation (with a ceiling for the number of patients) combined with fee-for-services for specific activities, such as home visits, and pay for performance on specific indicators. The majority of GP practices are run as solo practices (Ferré et al., 2014).

In the **Netherlands**, primary care is free at the point of delivery. GPs are remunerated by capitation for each patient registered with the practice, but in addition can charge for each consultation. GPs increasingly work in larger organizational settings such as primary health care centres,

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and increasingly work in multidisciplinary teams. GPs act as gatekeeper and patients need a referral from their GP to consult a specialist (Kroneman et al., 2016). Attempts to stimulate competition among GPs in the Netherlands have been contentious. Before 1998, GPs negotiated collectively on contractual conditions, divided the market through sharing agreements and regulated entry. When the Dutch Competition Act was introduced in 1998, the GPs came under scrutiny of the competition authority. The national GP association applied for an exemption from cartel prohibition, which was declined, leading to a strike of GPs in 2005. In 2011, the competition authority imposed a fine of € 7.7 million for impeding competition across GPs. The association formally objected, though it conceded that regional GP associations would not engage in collective negotiations about price, volume and service levels. In 2015, a court order annulled the fine because the competition authority had failed to provide sufficient evidence that the association had harmed competition (Schut & Varkevisser, 2017).

There are some analogies between competition for secondary care, analysed above, and competition for primary care. Within primary care, patients can choose which GP to register with, and GPs compete for patients based on quality. If GPs are paid by capitation, which is common, then GPs can increase revenues by raising quality and attracting more patients. This is to some extent also the case under a fee-for-service system, as higher quality will attract more patients and visits, although under fee-for-service the GP can increase revenues by encouraging visits by the same patients, which does not arise under capitation.

Similar to secondary care, the extent of competition can be muted by limited capacity, excess demand and shortages of GPs, as in Portugal. Patients are also generally reluctant to travel to see their GP so markets are geographically small. This is perhaps because patients interact much more frequently with their GPs, have relationships spanning over many years, and they generally choose practices close to where they live. However, primary care providers compared with hospital care often feature a multitude of providers, are smaller in size and have easier entry, all of which potentially enhance the scope for competition. Moreover, private ownership of general practices is common, and financial incentives are likely to have stronger and more immediate impacts.

GPs exert a gatekeeping role in several countries, and gatekeeping is likely to affect the competition among secondary care providers. One study argues that gatekeeping can help uninformed patients to choose provider, and therefore expands the scope of hospital competition (Brekke, Nuscheler & Straume, 2007).

What do we know about the effects of provider competition in primary care?

The evidence base on the effect of choice and competition for primary care is limited. Evidence from **England** suggest that about 40% of English patients choose the nearest practice. However, choice of practice is also affected by practice quality and characteristics of GPs (Santos, Gravelle & Propper, 2017). There is also evidence that in 2010 GP practices in areas with more competition were associated with higher quality (Pike, 2010). Another study using data from 2005–2012 found that competition (as measured by the number of doctors within a small distance of the practice) increases patient satisfaction and, to a lesser extent, clinical quality (Gravelle et al., 2019).

Evidence from **Norway** shows that the relaxation of constraints on choice in 2001 led to GPs being more responsive to patients. Following the reform, the number of GP consultations as well as patient satisfaction increased, and waiting time for consultations fell from 8.3 to 7.2 days (Barros, 2017). Further studies found that GPs operating in more competitive markets (using a proxy of available patient list slots) have higher numbers of referrals (Iversen & Ma, 2011), therefore more easily accommodating patient requests for specialist visits, and fewer emergency admissions (Islam & Kjerstad, 2016).

2.3. Provider competition in integrated care

What is the scope of provider competition in integrated care?

Individuals with chronic conditions often require a complex pattern of health and social care. There is a growing consensus that current models of care are not adequate for health systems facing ageing populations, and rising numbers of patients with chronic conditions and multimorbidity, leading to fragmented care for individuals with high needs (Stokes et al., 2018). In turn, this requires coordination across different sectors within and beyond the health care sector to address fragmentation of services and allow better patient experience. The provision of such coordinated services has become a priority in several European countries with several initiatives to address the fragmentation of care pathways for patients with chronic conditions. In this section, we first review key initiatives, and then explore whether patient choice and provider competition can be maintained in integrated care, or whether integrated care precludes or restricts choice and competition.

In the **Netherlands**, bundled payments for integrated care were introduced in 2010 for the following chronic conditions: diabetes type 2, chronic obstructive pulmonary disease (COPD), asthma and those at high risk of cardiovascular diseases. A "care group" organizes the care necessary for managing these diseases in a specified region based on standards developed for each of the four conditions. The aim is to improve coordination and reduce specialist visits and hospitalization. Care groups are legal entities acting as contractors and employ or subcontract providers to offer coordinated outpatient care. They are owned by GPs located in the region and vary in size from four to 150 GPs (Kroneman et al., 2016). Each care group coordinates the care and remunerates the care providers involved. Patients are free to participate in a care group or choose their own care providers. About 80% of Dutch GP practices joined a care group in 2014. There are about 100 groups, with a median of 50 GPs in each, covering 80% of GPs (van Dijk et al., 2014). Prices are negotiated between care groups and insurers.

A contract with a health insurer is necessary for GPs to receive bundled payments. GPs continue to receive the existing capitation fee for care not related to the chronic condition, and payments for consultations that address the chronic condition are included in the integrated care fee. GPs can compete for patients by offering attractive integrated care arrangements.

In **Germany**, sickness funds contract with ambulatory care providers. Sickness funds can sign selective contracts with providers which are intended to stimulate quality, achieve better coordination and cooperation for patient care and to be evidence-based (Kifmann, 2017). Disease Management Programmes (DMPs) for chronic diseases (asthma, breast cancer, COPD, diabetes, ischaemic heart disease) were introduced in 2003 by some sickness funds with about 6 000 DMPs established in 2005. DMPs primarily aim at coordinating services at the ambulatory level, provided mostly by family physicians and specialists based on evidence-based guidelines. DMPs are standardized nationwide, but regional differences exist with regard to integrated care pathways. They are based on a uniform contract between all sickness funds in a region and the regional physicians' association as well as a number of hospitals. In 2020, there were 9 253 DMPs covering 10 diseases (diabetes type 1 and type 2, asthma, COPD, coronary heart disease, heart failure, breast cancer, depression, chronic back pain and osteoporosis). They had more than 7 million individuals enrolled (partly in more than one programme), which is more than three times the number enrolled in 2005. Participation for insured persons is voluntary. If they participate in the scheme, individuals commit to see the physicians that are the contracted partners of the integrated care model contract (Blümel et al., 2020).

"Integrated care contracts" have been introduced in Germany since 2000 with the aim of overcoming intersectoral barriers through case management and coordinated patient pathways. Contracts cover a population for a given condition, such as stroke, or procedure, such as hip replacement. They can integrate providers horizontally (e.g. within ambulatory care) or vertically across sectors (e.g. inpatient and ambulatory care). During 2004–2008, 1% of funding for ambulatory physicians was earmarked for these contracts. During 2008–2011 there were about 6 400 contracts and coverage increased from 1.66 to 1.92 million patients. Sickness funds negotiate with single providers or networks of providers, including rehabilitative care providers. Payment varies from fee-for-service to capitation. Patient participation is voluntary. Patients are committed to contracted providers but are not penalized by sickness funds if they seek alternative providers (Kifmann, 2017). One integrated care contract, known as Gesundes Kinzigtal, has received attention. Established in 2006, it involves a population-based integrated care system run by a joint venture between a health management company and a Medical Quality Network. The aim is to improve population health, patient experience and reduce unnecessary costs. It serves around 33 000 inhabitants, regardless of age or disease, which represent about half of the population in the region. The GP is the main care provider, and patients are registered with a physician of their choice. Although enrolled individuals can choose their "doctor of trust", who is responsible for the coordination of services, from GPs, specialists and psychotherapists, 90% of them choose GPs. Given that in Germany patients do not need a GP referral to access a specialist, Gesundes Kinzigtal introduces elements of gatekeeping through which unnecessary referrals can, in principle, be avoided. If the Kinzigtal region pays less than the budget for its population in a given year (based on standardized costs), the savings are shared between the management company and the sickness funds; if costs increase, the management company is accountable for the loss. All providers (regardless of location or affiliation with Gesundes Kinzigtal) are still paid by the insurer (Struckmann et al., 2020).

In **England**, new care models have been developed with the broad aim of integrating health and social care services, promoting collaboration between the different institutions involved and motivating providers to design better care packages. Two main models have emerged: (1) the multispecialty community provider model, where groups of GP practices come together to offer a range of services, including community and outpatient services; and (2) primary and acute care provider models, which involve integrating primary, community, mental health and hospital services to improve coordination and to shift care away from the secondary sector. Integration of services can involve schemes covering the whole population, or segments of the population with specific needs with a focus on single disease management models (Collins, 2016).

Since 2015, the New Care Models – the Vanguards – programme aimed to move specialist care out of hospitals into community care, and to foster coordination of health, care and rehabilitation services through closer integration of general practice (primary care), hospital (secondary care), community and social care services. These programmes involved 14 multispecialty community providers; nine primary and acute care systems; six Enhanced Health in Care Homes vanguards, which provide care to individuals living in a care home, as opposed to their own home; eight urgent and emergency networks; and 13 acute care collaborations. The multispecialty community providers and the primary and acute care systems cover the whole population (population-based sites), while the others only cover specific segments of the population, such as care home residents (care home sites). Together, they covered around 9% of the population. In the first year in 2015, Vanguards were encouraged to set their own objectives across a range of potential outcomes. In the second year, the official policy objective was to reduce hospital activity, and, in the third year, to achieve reductions in emergency admissions and hospital bed-days (Morciano et al., 2020). A recent government White Paper "Integration and innovation: working together to improve health and social care for all" (Department of Health and Social Care, 2021) sets out legislative proposals and further emphasizes the need to move towards integrated care to join up care between primary care, community care, secondary care and mental health services, and to avoid organizational silos to remove barriers to collaboration. It also mentions that, while competition can drive service improvement, it can also hinder integration between providers.

In **Norway**, the Coordination Reform in 2010 envisaged that specialist health services should increasingly interact with municipalities. The latter should take greater responsibilities, in particular in relation to patients ready to be discharged from hospitals, and municipalities faced penalties if they were unable to receive patients (Ervik, 2020). In **Italy**, there have been some attempts to move away from the traditional model of GPs and other health professionals working in single practices to an integrated model that connects different health care professionals but progress has been limited. Several initiatives aimed at patients with multiple chronic conditions are centred around primary care with a focus on coordination with specialists, but also with social care and community care. In **Portugal**, an example of integration of care includes the management of diabetes patients, where groups of primary care centres provide specialized diabetes appointments, and improve coordination between primary, secondary and tertiary care.

The above examples highlight that, especially in the context of integrated care for chronic conditions, primary care is often meant to act as the lead organization with the aim of improving coordination of care with other organizations. This involves GPs working in teams in larger practices and with other health professionals, such as specialized nurses, as opposed to the traditional solo practice model which is still prevalent in some countries. The examples also make clear that under these arrangements patients are still free to choose their GP or GP practice. Primary care providers therefore potentially compete for patients by offering attractive integrated care arrangements. This is further reinforced when schemes are voluntary for the patients, as the integrated care pathway has to be more attractive relative to the status quo.

Whether provider competition is weakened as a result of pursuing integrated care processes depends on different factors. Taking primary care providers as a lead example, GP practices are paid by bundled payment which is meant to cover different care along the patient pathway, so that the tariff for each patient is higher. By offering and investing in high-quality integrated care, providers can attract patients and gain significant revenues. This implies that provider competition is more intense. However, patient choice is restricted, and patients are bound to receive care from the various professionals attached to the same organization, as opposed to picking and choosing providers in each segment of the patient pathway. Integrated care could also further encourage consolidation between GPs, reducing the scope for competition, but GP practices still remain relatively small organizations with patients likely being able to choose among several GP practices in their catchment areas. Patient choice can still be preserved in population-based (as opposed to disease-based) schemes, such as Gesundes Kinzigtal in Germany, as long as primary care acts as the coordinating organization.

Another concern is that larger organizations offering integrated care across and within sectors could strengthen their negotiating positions with funders. Having a single group deliver a whole range of integrated health care and related services could strengthen the bargaining power of the care group. This could be reinforced if the lead organizations are larger ones, such as hospitals, with more concentrated market structures. Therefore, a tension may arise between the health benefits and the synergies from better coordination and higher tariffs paid by the funder due to provider market power. One contract design issue in relation to integrated care is whether funders should rely on competition for the market or competition in the market. Both are possible. Under competition in the market, funders could have a "any willing provider" system, where, for example, the funder pays a bundled payment covering a specific chronic condition for every patient covered by a care organization (say, a GP practice). Under competition for the market, funders can implement selective contracting; for example, through a tendering process, and contract with a group of practices or providers for the delivery of a range of services required by patients with chronic conditions (Office of Health Economics, 2012).

In summary, competition and integration are both features of health systems and reforms. Competition does not necessarily interfere with integration of care if providers can compete to attract patients with high-quality integrated packages. If competition does interfere with integration, its extent depends on the services that are scheduled to be integrated, the types of providers involved, the lead organization and the market power of the newly formed organization.

What do we know about the effects of provider competition in integrated care?

There does not appear to be evidence on the role of competition for providers offering integrated care or for patients choosing integrated care providers. Existing empirical evidence has mostly focused on assessing whether integrated care improves health outcomes and reduces costs.

One study from the **Netherlands** found improvements in the organization and coordination of care for diabetes, and better protocol adherence, but increased administrative costs and large price variations unrelated to quality (de Bakker et al., 2012). The findings of a related study suggested that mortality rates also fell (Struijs, 2015). One study found that one additional care group reduced contract prices for diabetes while regional insurer market concentration had no effect on price (van Dijk et al., 2014). There are large price variations, possibly due to a lack of experience in negotiating contracts and uncertainty about care covered by the bundle. Evaluations of **German** DMPs for diabetes type (Kifmann, 2016) reported positive effects on patient outcomes and survival (Fuchs et al., 2014). An evaluation for COPD found improvements in mortality, morbidity and process quality, but higher costs (Achelrod et al., 2016;).

In **England**, there is evidence suggesting that hospital emergency admissions grew at a slower pace under the Vanguard programmes relative to other areas, but no effect was identified on bed-days (Morciano et al., 2020). One systematic review investigated the effects of integration or coordination between health care services, or between health and social care on service delivery outcomes with a focus on comparing the UK with other countries. It

cautiously concluded that integrated care may enhance patient satisfaction, increase perceived quality of care, and enable access to services, although the evidence for service costs and other outcomes remained limited. There were limited differences in outcomes between UK and international studies. There was little evidence regarding the impact of integrated care models on patient experiences of services that go beyond reported patient satisfaction (Baxter et al., 2018). A special issue of the Journal of Integrated Care, highlights how the changes required to implement integrated care are complex, difficult and take longer to deliver than expected (Edwards, 2019). The evidence so far on the evaluation of initiatives also shows that the definition of integrated care varied significantly across areas depending on local contexts and priorities (Lewis & Ling, 2020).

Although there is evidence that some integrated care is cost-effective, overall the evidence is weak (Nolte & Pitchforth, 2014). A review of 38 schemes, covering studies predominantly from Australia, Canada, England, Sweden and the USA, found no effect on health in most cases; in 11 there was no effect on secondary care costs or utilization, three reported lower secondary use, and in 19 the evidence was mixed (Mason et al., 2015).

There is growing evidence on integration from the **USA**, though this relates mostly to integration of hospitals with other segments of the health system. Some studies look at the effect of vertical integration between hospitals and physician practices. One study found that hospital ownership of a physician practice increases the probability that the physician's patients will choose the owning hospital, and that patients are more likely to choose a high-cost, low-quality hospital when their physician practice is owned by that hospital (Baker, Bundorfab & Kessler, 2016). Two other studies found that increases in the market share of hospitals that own physician practices are associated with higher hospital prices and spending, whereas increases in the market share of hospitals that are contractually integrated with physicians are associated with a small reduction in the volume of admissions (Baker, Bundorf & Kessler, 2014; Capps, Dranove & Ody, 2018). Hospitals can also integrate with post-acute care rehabilitation providers (skilled nursing facilities and home health agencies). One study found that vertical integration between hospitals and skilled nursing facilities increases payments but reduces rehospitalization rates, while vertical integration between hospitals and home health agencies has little effect (Konetzka, Stuart & Werner, 2018). There is also a growing amount of literature on accountable care organizations (ACOs), which is a new model for integrated health care. These were designed to promote integrated care by allowing a network of hospitals and providers to jointly contract with the Center for Medicare and Medicaid Services to provide care to a population of Medicare patients. The key feature of these contracts is the use of shared savings to contain costs combined with incentives to maintain quality. A systematic review found that the most consistent associations between ACO implementation and outcomes across payer types were reduced inpatient use, reduced emergency department visits, improved measures of preventive care and chronic disease management, and no evidence of worsen outcomes of care (Kaufman et al., 2019).

3. Conclusions and policy implications

Policies aimed at enhancing provider competition in the health sector may focus on the demand side (patients) or the supply side (hospitals and GPs), or both. For example, the introduction of DRG-based pricing explicitly affects the supply side, but its effects depend on patient choice policies, which will influence the extent to which hospitals can attract additional patients by raising quality. The effects of policies are further mediated by the market structure, which is determined by the number and distribution of providers, and over time as providers merge, vertically integrate, enter or leave.

Policies that enhance competition are therefore best seen as a portfolio of interdependent tools, aimed at patients, providers and the markets through which they interact. Indeed, in this policy brief we have shown how these policies are multifaceted. Competition has different implications depending on the service (primary or secondary), the dimensions of quality on which providers compete, market structure, and the diversity of providers (e.g. public and private).

We conclude by presenting a few policy lessons that can be distilled from the evidence we have collected in this brief alongside some suggestions on how to move forward, both in terms of policy and research.

The evidence base on provider competition in Europe is growing but remains limited

Policies that promote competition are increasingly common in European countries. A body of empirical evidence that evaluates such policies has grown over time but remains limited and is clustered in a small subset of European countries. The evidence is also context dependent as institutional arrangements differ significantly across health systems. There is therefore scope for further research across additional European countries and for exploiting the diversity in institutional arrangements to investigate different aspects of provider competition. A key challenge remains the availability of data for the research community: in particular, in relation to quality measures for large representative samples of patients. Even for countries for which we have good evidence on the effect of competition on quality, we know less about the mechanisms underlying the effects of competition on the quality and the efficiency of providers.

Proximity to provider remains the key driver of patient choice, while quality has a limited effect

Despite instituting policies to encourage patient choice, the evidence suggests that the proximity to provider is the key driver of patient choice. Patient demand does appear to change in response to the quality differences across the hospitals, but the effects are relatively small. A key lesson is that this currently limits the extent to which choice policies can improve patient allocation across providers or effectively raise quality because providers' financial incentives to raise quality are muted by low responsiveness on the demand side.

The existing literature cannot pin down who makes the choice, the patient or the GP on their behalf, and this is a natural step for future research. It is likely that patients make choices in conjunction with their GPs, so it is important that future choice policies consider the role of GPs as the primary agents acting on behalf of the patients.

The limited evidence on patient choice also suggests that more educated individuals generally respond more to quality than less educated ones. This potentially has equity implications as it can increase disparities in health if, thanks to choice policies, more educated individuals are able to access providers of higher quality. Further research is required to quantify such gradients.

There is scope for enhancing public reporting

Another implication of the evidence on patient choice is that for choice policies to be effective, patients need further support to exercise choice. One option is to provide better information by making the clinical and non-clinical indicators more relevant and accessible to patients. Countries differ in the amount and type of information they produce. There has been a proliferation of indicators across clinical (process measures of quality and health outcomes) and non-clinical aspects. However, it is not clear that this will in itself lead to more patients making informed and effective choices, or that the benefits of providing better information will outweigh its costs. Indicators provided in the public domain need to be designed in such a way that they can be easily understood. There is also a risk of information overload if too many indicators are provided. Even if the indicators are well designed, patients may need to be further encouraged to exercise choice as patient attitude towards choice can vary significantly across patients (Victoor et al., 2012).

The cost of developing quality indicators depends on whether they can exploit existing routine administrative information systems (e.g. as is the case for in-hospital mortality) or require a new method for data collection (as with PROMs). Whether the benefits of new data collections would overcome the costs needs careful assessment. Moreover, regulation focused on providing information to support consumer choice can bring challenges of its own; for example, it can focus providers on those measures of quality that are reported to the detriment of other, less easily measurable but important, measures of quality, and restrict innovation.

Hospital competition can improve some dimensions of quality but not others

The evidence suggests that more competition among hospitals can improve some dimensions of quality, such as heart attack mortality, but the effect does not systematically translate to other quality dimensions for emergency and elective care, and in some cases may even reduce quality. As additional quality measures become available, such as patient-reported outcome and experience measures, future work can explore the effects of competition on a broader set of outcomes. Critically, more research is needed to understand the underlying mechanisms that link competition and outcomes. This can then support changes to the institutional setting to ensure that competition works more systematically to enhance quality.

There appears to be a tension between activity-based payments, that are a prerequisite for competition to work, and expenditure control

A common criticism of competition under a DRG-type payment system is that DRGs can encourage excessive increases in care volumes and total hospital spending. One way to reduce the concern over excessive volumes is to introduce mixed or blended payment systems, which combine a fixed budget component with prices that are below the average cost (as in Norway, and more recently in England). DRG prices that are below average costs might help mitigate excessive incentives to increase volumes, a common concern with DRG systems, but will also hinder quality competition since hospital profit margins from attracting additional patients are reduced. Therefore, DRG prices cannot be set too low. In summary, policy-makers do not face a dichotomous choice between a fixed budget and an average-cost pricing rule. They can thus adopt an intermediate strategy, combining elements of both payment systems, and develop policies which are compatible with both patient choice and cost containment. However, purchasers may lack the expertise, meaningful data or sufficient negotiating power to find alternative ways to keep volumes under control (Greer, Klasa & van Ginneken, 2020).

Hospital mergers restrict patient choice and require careful assessments to ensure they bring benefits

The scant empirical evidence reviewed in this brief does not suggest that mergers increase quality as claimed by most merging hospitals, and in some cases, they might reduce it. There is therefore a risk that some mergers have been passed with no benefits in terms of quality and with reduced patient choice. Additional evidence on the effects of mergers on quality for European countries is required, particularly for countries with lower hospital density where the effect on restricting patient choice following a merger is likely to be more pronounced.

Hospital mergers are rarely blocked. In some countries such as France, Norway and Portugal, mergers between public hospitals within the same county or region are treated as internal reorganizations of public services (because several public hospitals are owned by the same public body), and not subject to authorization from the competition authority. Hospital competition policies encourage public hospitals to compete on quality, and it would seem a natural concern that quality may suffer as a result of mergers between public hospitals that restrict both choice and access.

The challenge for competition authorities remains the assessment of a proposed merger on quality, both in terms of access to information on quality and modelling the effects of the prospective merger. For future merger assessments, the critical issues are the comparable services over which hospitals compete, how quality can be reliably measured, accurate estimates of hospital market shares based on administrative data, and the predicted effects of changes in the market structure following a merger using empirical models. As an alternative to mergers, regulators could encourage hospitals to employ other solutions, such as the establishment of clinical networks or other forms of collaboration in order to achieve synergies.

Public and private providers do not systematically differ in terms of quality and efficiency

The limited empirical literature across European countries does not make a compelling case for either the quality or efficiency of private providers to be generally greater than public providers, and this is consistent with evidence from other countries. This is an important point since, in political debates, private providers are often assumed to be more efficient, and this is often the main argument to encourage their entry. An empirical challenge remains to control for patient case mix as private providers may have a stronger incentive to treat less costly patients, which in turn may bias hospital comparisons in favour of private hospitals both in terms of quality and efficiency.

If quality and efficiency do not tend to differ between public and private providers, then altering the public–private mix in provision is unlikely to generate the desired effects. For health systems relying mostly on public provision, contracting to private providers may still be an option to expand publicly funded capacity quickly. Moreover, under a DRG-type payment system, policy-makers must decide whether to set the same prices for public and private providers. If the purchaser agrees on a differential price for different types of providers, the purchaser needs to assess whether the additional expenses or savings are compensated by the higher quality.

GP competition differs in many respects from hospital care, but key issues of patient choice and provider competition remain

General practice differs from hospital care in many respects. General practices are usually small, mainly privately-owned businesses, operating in small geographical markets and having a small number of rivals. They each care for a relatively small number of patients, see them more frequently, have longstanding relationships and so are likely to be better informed about their needs. Because of this, and their potential gatekeeping role, general practices have considerable influence on the care pathways of their patients. But key issues related to patient choice and provider competition remain. Policy-makers can support public reporting to facilitate patient choice of a GP practice. In turn, free choice can provide an incentive to GPs to compete on quality. There is however very limited empirical evidence on patient choice and provider competition in primary care. The scarce evidence that is available echoes the findings for secondary care that distance to the provider is the main driver of patient choice.

Provider competition offering integrated care for patients with chronic conditions is possible

In the context of integrated care for chronic conditions, primary care is often meant to act as the lead organization in several European countries with the aim of improving coordination and reducing fragmentation of care with other organizations. This involves GPs working in teams in larger practices and with other health professionals. The examples reviewed in this brief make clear that under these arrangements patients are still free to choose their GP practice, and therefore a competition element remains even following integration.

Primary care providers can potentially compete for patients by offering attractive integrated care arrangements. This is further reinforced when schemes are voluntary for the patients, as the integrated care pathway then has to be made more attractive relative to the status quo. But whether provider competition of primary care providers is weakened or strengthened as a result of pursuing integrated care processes depends on the extent of provider consolidation and the degree to which bundled processes restrict patient choice, the generosity of the bundled payments, which drive the financial incentive to compete, and the strengthened negotiating position of the integrated providers with funders.

There is growing evidence assessing whether integrated care improves health outcomes and reduces costs. However, there is lack of evidence investigating the role of competition for providers offering integrated care or for patients choosing integrated care providers. There is therefore a knowledge gap which could be filled by future research which could further inform the design of policies promoting integrated care process in competitive environments.

Policies enhancing competition need to be integrated with other policies

Policies enhancing competition are a means to an end, not an end in itself. Policies which enhance competition can potentially play a useful role in driving up quality and efficiency. But health systems are complex, and there are a range of other regulatory arrangements to improve and ensure the quality of providers and avoid waste. Examples of these include auditing and monitoring mechanisms, comparison of performance and quality indicators, minimum quality standards and pay for performance (Busse et al., 2019). These policies are likely to complement each other, as they all rely on good information systems that measure quality and other dimensions of performance across different providers. Therefore, policies enhancing competition do not always have to be seen as an alternative to other models, but can work in harmony with other policies and coordinate with other policy efforts. A further challenge is that the evidence on the effects of competition is often mixed. For countries keen to adopt a competition model, we still need to understand the mechanisms through which competition brings improvements. Understanding such mechanisms remains a priority for future research.

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