

Evidence scan:

Competition in healthcare

April 2011

Identify Innovate Demonstrate Encourage

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Health Foundation evidence scans provide information to help those involved in improving the quality of healthcare understand what research is available on particular topics.

Evidence scans provide a rapid collation of empirical research about a topic relevant to the Health Foundation's work. Although all of the evidence is sourced and compiled systematically, they are not systematic reviews. They do not seek to summarise theoretical literature or to explore in any depth the concepts covered by the scan or those arising from it.

This evidence scan was prepared by The Evidence Centre on behalf of the Health Foundation.

Key messages

Competition between organisations providing healthcare may improve clinical outcomes, reduce costs and help the system function more efficiently. This research scan examines whether empirical research supports such claims.

Impacts

This research scan summarises 53 studies. Nine databases were searched for material available as at April 2011. About half of the studies were from the USA, one-third from the UK and the rest from other countries.

Competition improved clinical outcomes in England but not necessarily in the USA. In the USA competition was more likely to be associated with reduced costs for patients, providers and commissioners. Less positive outcomes included potential fragmentation, reduced access and resistance from staff and patients.

Important system features

As there are such mixed findings about the impacts of competition, it is important to consider what factors may enhance the benefits. Research is limited in this area, but important factors may include:

- adequate data and information
- market characteristics
- fixed price tariff models for hospitals
- having a wide range of providers
- appropriate management
- appropriate financing and monitoring.

Component of quality	UK evidence trends	International evidence trends
Clinical outcomes	Data analyses suggest potential improvements in mortality	Data analyses, reviews and observational studies suggest reduced clinical outcomes
Access and equality	Observational studies have mixed results, with some suggesting improved access and others suggested reduced access	Data analyses and observational studies suggest reduced access
Costs and efficiency	Data analyses have mixed results, with some suggesting potential benefits are not fully realised	Data analyses and observational studies suggest competition reduces costs for patients and commissioners
Satisfaction	There is little research available	There is little research, but a review suggests competition may improve satisfaction
Professionalism	There is mixed evidence. Most available research suggests negative staff views and behaviours but there is some evidence of improved managerial quality	Data analyses and observational studies suggest reduced staff stability, more stress and self-serving professional behaviour and role conflicts
System structure	There is little research available	Reviews and data analyses suggest competition may be associated with fragmentation and increased mergers

1 Scope

This scan examines empirical research about the impact of competition in healthcare. All of the evidence has been sourced and compiled systematically, but the scan is not a systematic review and does not seek to summarise every study on this topic.

1.1 Purpose

In England, the NHS functions on the basis of what has been called a quasi, mimic or internal market. Here providers, including NHS organisations and those from the voluntary and private sector, are theoretically placed on an even footing and compete for patients and funding.¹

The recent White Paper, *Equity and Excellence*,² and the 2010-11 *Health and Social Care Bill*³ confirm the government's commitment to extending competition in healthcare.

The Health Foundation believes that external drivers for change, such as competition, regulation and financial incentives, can be an important way to improve quality in healthcare when used as one component of a broader system. However, like any initiative, competition may have both positive and negative consequences.

A great deal has been written about the pros and cons of competition in healthcare, but much of the literature is based on theories or opinions, rather than empirical research.

This research scan summarises empirical research about improving quality using a competitive market, the system features needed for competition to work most effectively and any unintended or negative consequences.

1.2 Competition between providers

In economics, the term 'market economy' is used to describe any process of exchange between buyers and sellers. A 'free market' is where such exchange occurs without interference from government. A 'quasi market' is where there is some level of regulation or control by government.

Using a 'market' approach in healthcare aims to give patients and providers more choice over who provides their care and to foster competition among providers in order to meet demand efficiently. This may take various forms. For instance, in England people can pay privately for plastic surgery or other care and choose between a multitude of providers (using free market principles). In NHS funded care, since 2006 people have also been able to choose between providers for various types of care and payment is made by the NHS (managed competition).

Competition can be defined in different ways. Some research examines 'competitive systems' whereby patients and their doctors have a choice of where care is gained and payment is made either privately or by publicly or employer funded health insurance. Others conceptualise competition as the number of similar organisations in a specific area, with higher competition being defined as a larger number of neighbouring organisations. This research scan includes studies that use either definition.

1.3 Focus

In England, government policies have presented many different cases for increasing competition in healthcare, including the potential for:

- improved clinical outcomes
- improved patient choice
- patient-centred care
- access and responsiveness
- equity
- efficiency and productivity
- flexibility in supply or capacity
- innovation and improvement.

This scan examines the degree to which such claims are supported by empirical research.

The scan addresses the following questions:

- Does competition improve quality in healthcare?
- What are the other outcomes?
- What kinds of system features need to be in place for competition to work within the NHS?
- What are the pros and cons of a managed market versus allowing free competition?
- What evidence is there comparing competition versus collaboration, partnership, professionalism and integration?

This section outlines the methods used to collate information. The following sections address the questions above briefly in turn.

1.4 Methods

To collate evidence, two reviewers searched bibliographic databases, reference lists of identified articles and the websites of relevant agencies for information available as at April 2011.

The databases included MEDLINE, Ovid, Embase, the Cochrane Library and Controlled Trials Register, PsychLit, Google Scholar, the WHO library, DARE and the Health Management Information Consortium. All databases were searched from 1995 until present.

To be eligible for inclusion, studies had to:

- refer to primary research or reviews
- be from the UK or abroad
- be readily available online or in print
- address one or more of the core questions listed in 1.2
- be available in English or readily available for translation.

The reviewers scanned more than 1,000 pieces of potentially relevant research, selecting the most relevant to summarise here. No formal quality weighting was undertaken. Material was excluded largely because it was not empirical or reported some empirical findings without describing the methods or source of information. Fifty-three studies were included.

Data were extracted from all publications using a structured template and studies were grouped according to key questions to provide a narrative summary of trends. Studies from the UK versus other countries were grouped separately.

1.5 Caveats

When interpreting the findings it is important to bear in mind several caveats.

First, the research scan is not exhaustive. A rapid scan was undertaken to address specific questions posed by the Health Foundation but the scan does not represent every study about competition in healthcare.

Second, the review identified a paucity of literature. Not only were there few studies addressing the questions of interest, but the level of detail reported was sometimes insufficient to provide a meaningful summary. Studies also defined ‘competition’ in varying ways. The lack of information and varying definitions means that it is difficult to make comparisons between studies or between approaches such as competition and collaboration.

Third, the quality of the included studies was variable. Most research comprised data analyses or observational studies, often at one site. This means the findings may not be generalisable.

Finally, it is important to be able to judge any vested interests among the authors of research studies.

The affiliation of writers is therefore stated when summarising research; however, this does not necessarily indicate who funded or commissioned the study, merely the authors' institutional affiliation.

Readers should bear in mind these caveats when considering the synthesis of material overleaf.

2 Quality and quantity of evidence

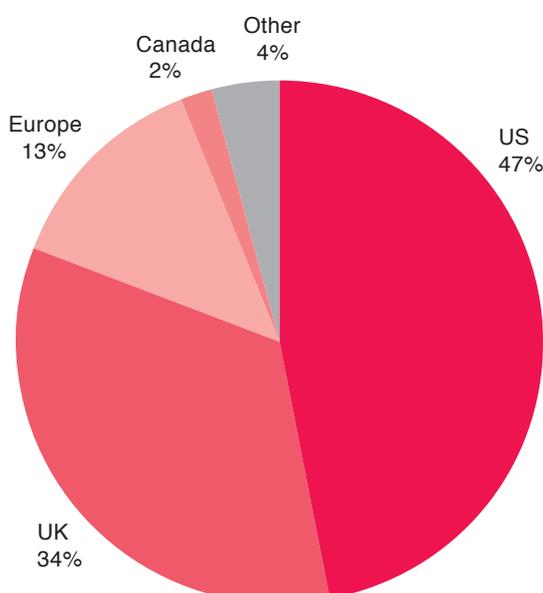
There are almost no studies that are only systematic reviews of other reviews about competition in healthcare.

As so much has been written about competition in healthcare, the Health Foundation initially wanted a research scan including only systematic reviews of other reviews about competition. Almost no studies fitting this description were identified. The inclusion criteria were therefore broadened to include any empirical study. Even then, the quality and quantity of evidence remains limited.

Most of the literature about competition in healthcare comprises descriptive opinion pieces, theories or narratives. The original assumption that there is a great deal of research about competition in healthcare may therefore be misplaced.

As outlined earlier, 53 studies of relevance to the questions of interest were identified. The largest group were from the USA, but there were a substantial number from the UK, most commonly England (see figure 1).

Figure 1: region of included studies

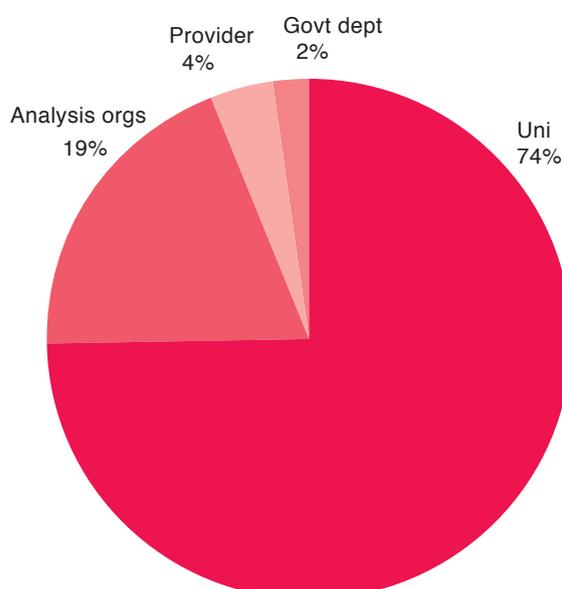


Although the number of studies is too small to draw conclusions about geographic trends in the findings, at a broad level, studies from the UK were no more or less likely to find overall benefits from competition compared to those from the USA. In both regions, the research findings were mixed.

The majority of studies were conducted by university academics, though around one in five were published by public or private analysis organisations such as management consultants, think tanks or research institutes (see figure 2).

There appeared to be no correlation between the author affiliations and findings. In other words, think tanks were no more likely than universities to suggest there were specific benefits from competitive markets. The numbers are too small to draw firm conclusions about this, but there were no obvious trends.

Figure 2: author organisational affiliations



3 Impact on quality

This section summarises empirical research about the impact of competition in healthcare on clinical outcomes, access, equity, efficiency and other quality indicators. Evidence from the UK is summarised first, followed by international evidence.

3.1 UK evidence

Clinical outcomes

Most of the literature available from the UK focuses on hospitals in England. Wales, Scotland and Northern Ireland have different systems, focusing more on collaboration and integration. In England, the NHS has operated on the basis of a market since 2002, with a split between purchasers and providers of healthcare. From January 2006 onwards, every patient in England could choose their hospital for secondary care. Hospitals competed with each other to attract patients and secure their revenue.

A number of researchers have examined the impact of this quasi market competition on clinical outcomes.

There are some positive findings, with competition being associated with improved clinical outcomes in a number of studies. However the evidence is not unequivocal, with some studies suggesting either no influence or a negative impact of competition on clinical outcomes.

For instance, researchers from the London School of Economics examined whether hospital competition in a market with fixed reimbursement prices can prompt improvements in clinical quality.

Using mortality following heart attacks as an indicator, the researchers examined whether quality improved more quickly in more competitive markets (areas with a greater number of hospitals) after the 'choice' reforms.

Mortality fell more quickly (ie quality improved) for people living in more competitive markets after the introduction of hospital competition in January 2006.⁴

Researchers from the University of Bristol also examined the impact of competition on hospital outcomes by following trends after the introduction of hospital choice policies in England.

The authors analysed about 68,000 discharges per year from each of 160 hospitals. Patients discharged from hospitals located in more competitive markets were less likely to die.⁵

This finding is different from similar data analyses by the University of Bristol which found that competition between hospitals in the 1990s did not improve death rates.^{6,7}

This underlines that the type of competitive reform and the historical and social context may have an important effect on outcomes.

Access

There is limited empirical evidence about the impact of competition on access to healthcare in England.

Research conducted by a researcher at the General Medical Council found that the quantity of healthcare has increased in competitive markets in England, but the effects on quality and cost are ambiguous. There are fears that sections of the population may be discriminated against because resources have been shifted away from deprived areas and toward the more affluent.⁸

On the other hand CIVITAS: the Institute for the Study of Civil Society, reviewed evidence and found that market forces have contributed to improved access for patients in England.⁹

Costs and efficiency

There is mixed evidence about the impact of competition on costs and efficiency. Whilst increased efficiency and cost effectiveness is often cited as a potential outcome of competition, the empirical evidence does not always support this in the UK.

In 1995, the Health Policy Network of the National Health Service Consultant's Association and the National Health Service Support Federation undertook an analysis of changes in NHS costs due to increasing competition. They found that until market concepts were introduced, administrative overheads were low, at 5-6% compared with around 22% in the USA. After the NHS market was introduced, administrative running costs doubled. It was estimated that 1.7 billion pounds per year were diverted from clinical services towards administration. The authors suggest that there is a conflict between strategic planning of care and market forces.¹⁰

As described overleaf, researchers from the University of Bristol examined the impact of competition on hospital outcomes by following trends after the introduction of hospital choice policies in England. From 2006, prices, previously negotiated between buyer and seller, were set centrally.

Analysis of a substantial dataset found that competition can save lives without raising costs. Patients discharged from hospitals located in markets where competition was more feasible had shorter length of stay and were treated at the same cost.¹¹

Researchers from the London School of Economics examined whether introducing patient choice and hospital competition in the English NHS since January 2006 has prompted hospitals to become more efficient. Efficiency was measured using hospitals' average length of stay for patients undergoing elective hip replacement, including the time from a patient's admission until their surgery and the time from surgery until discharge. The researchers found that hospitals exposed to competition took steps to shorten the time patients were in the hospital prior to their surgery, which resulted in a decrease in overall length of stay. Length of stay was reduced without impacting on patient outcomes. The authors conclude that hospital competition in markets with fixed prices can increase hospital efficiency.¹² However this does not seem to account for the other policy drivers and initiatives focused on reducing length of stay in recent years.

McKinsey (financial management consultants) examined whether increased provider competition can improve the quality of care and control costs based on a review of existing evidence and information from their own experience.¹³ McKinsey found that some empirical work suggests that increased competition among hospitals in England has improved quality and outcomes. There is similar evidence from the USA with regard to increased competition with fixed pricing and higher quality care. However, other work suggests that competition may reduce the quality of care.

McKinsey report examples from their own work where provider competition has resulted in poor outcomes, duplicate costs and inefficient allocation of resources. They also acknowledge other examples where competition, when managed effectively, has improved outcomes and choice.

Summarising empirical work about competition, they propose that the benefits of competition between healthcare providers include:

- competition can be designed to create incentives for providers to innovate and deliver higher quality care at a lower cost
- research suggests that more competition can result in higher productivity in other industries (whether this occurs in healthcare is uncertain).

The challenges of competition include:

- increased competition can result in duplicated services and an excess of capacity
- markets for some health services are ‘natural monopolies’ which could drive down quality
- competition could lead to a focus on ‘profit making and market success’ rather than patient care
- successful markets in other industries operate differently to healthcare.

Researchers from CIVITAS also reviewed the evidence to date, suggesting that market forces have contributed to improved access for patients; reduced waiting times and increased efficiency; and improved financial management in providers. However, benefits are not widespread. It was concluded that the NHS is taking on the extra costs of competition without realising the benefits.¹⁴

3.2 International evidence

Clinical outcomes

Internationally, there is also mixed evidence about the benefits of competition on various components of quality.

The majority of empirical evidence is drawn from the USA, which is based on a competitive market system. Researchers therefore tend to compare whether organisations in high versus low areas of competition, defined according to the number of other organisations they are competing with, have different outcomes.

In terms of clinical outcomes in the USA, increased competition between providers is often associated with no impact, mixed impact or negative impact. This conflicts with UK findings.

For instance, researchers from Pennsylvania State University examined the effect of competition on measures of quality in US health maintenance organisations (HMOs). They analysed five years worth of data from all health plans submitting data to the National Committee for Quality Assurance, comparing outcomes for HMOs working in a region alone or with competition from others. The authors found that measures of quality did not improve with increased levels of competition. There was some evidence of an inverse relationship between competition and quality.¹⁵ In other words, the greater the competition, the less well organisations performed on clinical outcomes.

A similar team from Pennsylvania State University examined whether health maintenance organisations (HMOs) operating in competitive markets, or markets with substantial HMO penetration, perform better on standardised quality measures. They undertook a secondary analysis of cross-sectional data. Greater competition was associated with inferior health plan performance on three out of six quality dimensions. The authors concluded that organisations in more competitive markets did not achieve better quality after controlling for other important covariates, although plans in markets with a high degree of HMO penetration performed better on some quality dimensions.¹⁶

Florida International University examined the impact of managed care and hospital competition on quality using in-hospital complications as quality measures. Data from 16 states spanning a five-year period were investigated. Higher managed care penetration increased quality as measured by wound infections and complications. However, when other quality measures were used the same relationship was not evident. The author concluded that there is no simple linear relationship between managed care penetration, competition and quality.¹⁷

Higher hospital market share and market concentration were both associated with lower quality of care. Hospital mergers had undesirable quality consequences.

Researchers from the Philadelphia Veterans Affairs Medical Centre examined whether hospital mortality rates changed in New Jersey after implementing a law that changed hospital payment from a regulated system based on hospital cost to price competition with reduced subsidies for uncompensated care. Data were analysed from 1990 to 1996, comparing New Jersey and New York. The authors found that market-based reforms may adversely affect mortality for some conditions but not others. Insured patients in less competitive markets fared better in the transition to price competition. Less competitive hospital markets were associated with a relative decrease in mortality among insured patients.¹⁸ Once again this suggests that there is not a simple linear relationship between competition and clinical outcomes. Whilst competition was beneficial for some indicators, it had no impact or a negative impact on others.

A review of whether not-for-profit organisations have different quality outcomes to for-profit organisations in a competitive environment examined hospitals that had converted from non-profit to for-profit status in the USA. This conversion improved the profitability of the hospitals but quality of care measures such as mortality and adverse effects were negatively impacted in the initial years after the conversion. Such conversions also tended to increase total healthcare expenditures per capita and had the potential to threaten relationships between patients and clinicians.¹⁹

Access and equality

International evidence about the impact of competition on access to healthcare and equality is mixed.

For example, a systematic review from the University of California found that competition and other changes in health management organisations impact on access to care among people with long-term conditions and those subject to discrimination due to income or ethnic background. There were some potentially positive impacts, but also some instances where competition could reduce access.²⁰

A team from Maastricht University in the Netherlands undertook a systematic review about financial reforms in the Russian public healthcare sector. Thirty-seven studies were included. The review found substantial inter-regional inequalities in terms of financing, access to public healthcare services and efficiency. Informal and quasi-market payments reduced access to public healthcare services and undermined the overall financing sustainability.²¹

Researchers from the University of London also undertook a case study to examine the impact of competition on healthcare services in Russia. Interviews with key informants and a survey of service users found that there were negative impacts, including reduced access and a focus on cost containment rather than welfare.²²

Canada provides residents with universal single-payer healthcare whereas the USA encourages residents to select and pay for their own providers. Researchers from the Institute for Clinical Evaluative Sciences in Canada reviewed how these different models of healthcare financing and delivery affect patterns of procedure volumes, outcomes and volume-outcome associations. A total of 142 articles were analysed, 90% of which were from the USA. The likelihood of finding a statistically significant volume-outcome association was substantially lower in Canadian studies compared with those from the USA. The authors concluded that by promoting competition between hospitals and providers, market-based models may exacerbate existing variations in the quality of hospital care.²³

Satisfaction

A team from Southern Illinois University reviewed literature to help develop a model of whether increasing competition leads to the provision of better products and services to satisfy the needs of patients. Fifty articles were included. The authors suggest that patient satisfaction can be seen as an outcome measure directly dependent on competition. Quality of care and healthcare systems costs are also determinants of customer satisfaction. There is some evidence that increased competition improves patient satisfaction.²⁴

Costs and efficiency

Internationally, the overall trend is for competition between hospitals to be associated with reduced overall costs and reduced costs for patients. Most of the international evidence about costs and efficiency is drawn from the USA, which has a very different health system from England. This means that the generalisability of any findings is questionable.

There is a strong ideology about the association between competition and cost in the USA. In 2010, the US Federal Trade Commission and the US Department of Justice issued a report based on joint hearings. The report states that competition has improved quality and reduced costs but that regulatory and structural issues have impeded competition from reaching its full potential.²⁵

The Kaiser team in Florida undertook a review of literature to examine whether regulatory policies or industry procedures have hindered the implementation of 'just in time' systems in healthcare. The costs and benefits from a just in time system in healthcare were compared with those achieved by the manufacturing, service and retail industries. The author concluded that in order to gain greater efficiencies, the healthcare market should be restructured to encourage greater price competition. A standardisation process should eliminate duplication of products and lead to savings.²⁶

In the 1990s, a number of healthcare reform proposals in the USA were built around the concept of managed competition. More recently, consumer-directed healthcare models have become popular. The University of Michigan reviewed literature to compare these two strategies. Numerous studies have found that people's health plan choices are influenced by out-of-pocket premiums. The impact of out-of-pocket costs varies according to people's health risk, with younger, healthier individuals being more sensitive to costs. Consumer-directed health plans tend to attract healthier enrollees, but there is little evidence to support the claim that these plans result in lower medical spending than more generous plans.²⁷

Researchers from Carnegie-Mellon University in Pittsburgh examined the effects of market structure on the premiums of health management organisations from 1988 to 1991. They found that greater competition, defined as the number of HMOs in the market area, reduced HMO premiums.²⁸

Researchers from Pennsylvania State University examined the effect of competition on measures of quality in US HMOs, analysing five years worth of data from various health plans. Increased competition was associated with lower health premiums in some areas. It was suggested that price competition dominates, with purchasers and consumers preferring lower premiums at the expense of improved quality.²⁹

Rather than focusing only on costs for patients, researchers from the University of Rochester in New York compiled empirical studies suggesting that competition and associated organisational changes helped reduce overall healthcare costs or process and provider costs.³⁰

Researchers from the University of Alabama reviewed empirical literature about the effects of selective contracting and hospital competition on hospital prices, travel distance, services and quality.

They found that selective contracting has allowed managed care plans to obtain lower prices from hospitals. This finding is stronger when there is more competition in the hospital market. There is little research on the effects on quality, but preliminary evidence suggests that hospital quality has not declined and may have improved.³¹

Most research focuses on hospital costs, but there is emerging evidence about other sectors too. For instance, researchers from the University of California examined the relationship between competition and nursing home expenditures on clinical, hotel, and administrative activities. Data from 1991, 1996 and 1999 for 500 free standing nursing homes in New York State were analysed. Increased competition was associated with higher clinical and administrative costs.³² This contrasts somewhat with the findings about US hospitals, but matches some UK findings.

4 Other impacts

Research has shown that competition in healthcare has both positive and negative impacts on quality. UK findings suggest improvements in clinical outcomes. US studies suggest cost reductions, but also potential reductions in clinical outcomes. This section summarises some of the other potentially unintended outcomes of competitive markets, including impacts on professionals, fragmentation and practical issues.

4.1 UK evidence

Professionalism

Implementing competitive systems may be met with resistance. Researchers from the University of Medicine and Dentistry of New Jersey examined managed competition in England's NHS.

They suggest that this policy was used to transform the NHS from an administered public service to a set of interlocking markets and contracts focused on cost containment. Implementation led to resistance and opposition. Many organisations and clinicians thought that managed competition was too disruptive and costly.³³

Researchers from the University of Southampton reviewed evidence about the impact of NHS reforms between 1991 and 1995. They found that evidence was relatively sparse. However, there was a trend towards reduced costs, along with dissatisfaction among some providers, practitioners and patients.³⁴

Competition could also impact on how professionals behave. Researchers from the University of Brighton reviewed information about the impact of competition on ethical behaviour among healthcare workers.

In competitive systems, relationships tend to be oppositional and to stimulate self-seeking behaviour. It is suggested that this can impact negatively on medical ethics.³⁵

Competition may lead to organisational change. Researchers from the University of Warwick examined the impact of large-scale change efforts within healthcare organisations based on a review of international literature. Key concerns include changing roles and relationships, such as more power among management rather than clinicians; potential 'deprofessionalisation'; and healthcare becoming more of a commodity rather than being seen as a human right.³⁶

There are also some positive implications. Researchers from the London School of Economics and Political Science examined the impact of competition on management quality in the English public hospital sector. They found that management quality is strongly correlated with financial and clinical outcomes such as survival rates from emergency heart attack admissions. Higher competition (as indicated by a greater number of neighbouring hospitals) is correlated with increased management quality. Adding another rival hospital increased the index of management quality by one-third of a standard deviation and led to an 11% reduction in heart attack mortality rates.³⁷

4.2 International evidence

Acceptance and culture

The Urban Institute in Washington DC provide a case study of a reform experiment regarding US Medicare. There have been moves to make Medicare more competitive, like private markets, but when reform proposals near implementation, opponents of competition often stop tests of change. The authors suggest that there may be resistance to competition among stakeholders.³⁸

Research conducted at the University of Cincinnati found that potentially negative issues emerging from market-based reform include:³⁹

- clashes between public expectations and payer restrictions
- corporatisation of health service delivery
- cultural shift from humanitarian endeavour to business enterprise
- depersonalisation of treatment as time and money constraints stretch resources
- underfunding of care for the poor and uninsured
- mergers of health plans and institutional providers.

Professionalism

Researchers from the University of Michigan found that market competition reduced patient satisfaction and outcomes. It can also lead to less stability and more stress for staff.⁴⁰

An analysis of health reform conducted by the Ministry of Health in Mexico found that competition was potentially associated with higher costs for families and the government, insufficient health infrastructure and staff; and challenges to the service supply and capacity building.⁴¹ There were potential impacts on the behaviour of, and acceptance by, professionals.

Fragmentation

Competition may also fragment the market and make collaboration more difficult. Researchers from Pennsylvania State University compared outcomes for HMOs working in a region alone or with competition from others.

Competition was associated with fragmentation in the healthcare system, which may in turn impact on quality outcomes.⁴²

The Nordic School of Public Health in Sweden analysed the feasibility of combining integration with competition in primary care. Recent Swedish policy has seen patients able to choose their primary care centre or GP. This in turn generates a capitation payment to the chosen unit.

To avoid the fragmentation sometimes associated with healthcare, various types of integrated care are being tested, such as partnerships between family practices or between practices and local hospitals.

The author concluded that some 'choice of care' schemes could hamper the development of integration in local healthcare. The best model might be for patients to choose between integrated healthcare arrangements, rather than individual healthcare professionals or practices.⁴³

Mergers

To guard against fragmentation, some organisations may merge and this has its own limitations, including issues of access and equity.

Researchers from the University of Miami reviewed literature about consolidation of the hospital sector in response to changes in the competitive environment. They found that there has been an increase in hospital mergers in the USA, primarily in reaction to a competitive environment that is placing a greater emphasis on controlling costs and forcing high-cost providers out of the market.

Hospitals claim their primary merger motives are improving efficiency and the quality of care, though there is limited empirical evidence for these outcomes.⁴⁴

5 System features

Previous sections suggest that introducing competition in healthcare has various pros and cons. On one hand, competition has been found to improve some clinical outcomes and reduce costs, but on the other hand, it may be associated with professional and public resistance, fragmentation, mergers and reduced access.

5.1 Reviewing system features

Of particular interest are the widely varying findings between studies undertaken in different contexts. It seems that competition works well sometimes, so it is important to consider the features under which competition may flourish.

This point is underlined by researchers from the University of Oviedo in Spain who explored how ‘managed competition’ has been applied in the Greek, Italian, Portuguese and Spanish healthcare systems. The managed competition paradigm, as implemented in England, entails separating the financing or purchasing and providing functions in healthcare to enhance competition among providers while maintaining universal access and public financing. Reform towards managed competition has taken place in all four countries studied but each country emphasised different aspects. Characteristics of healthcare systems were crucial factors in the extent to which competition worked well.⁴⁵

5.2 UK evidence

Market characteristics

McKinsey & Company (management consultants) conducted a review about the potential for competition to improve healthcare delivery.

They found that rather than concentrating on whether competition is intrinsically good or bad, it is more useful to identify specific circumstances where competition can produce good results.

They argue that there are five questions that need to be asked to identify how much competition is appropriate:⁴⁶

- What is the relevant market-segment size?
- What is the minimum economic scale?
- What is the minimum clinical scale?
- Are there significant barriers to market entry or exit?
- Are there significant barriers preventing patients from switching providers?

McKinsey argue that in order to use provider competition to improve the quality of care and manage costs, the level of competition must be matched to the clinical service appropriately, with different strategies needed for different types of care.

Competition is healthier when care is less specialised. Other important factors to take account of include removing the barriers to competition, removing barriers to market exit and entry, and removing barriers to patients changing between providers. They also argue it is important to ensure information is available and effective.

Range of providers

The type and range of competitors in a market could be important.

Alternative provider of medical services (APMS) legislation means that private commercial firms can provide NHS primary care. Researchers from the University of Edinburgh examined the effect of APMS contracts in England on bidders and providers, patient numbers, contract value, duration, and services. A survey was sent to all PCTs in England. Of 152 PCTs, 141 provided information on 71 APMS contracts that had been awarded and 66 contracts that were out to tender. Of the contracts awarded, 36 went to 14 different commercial companies, 28 to independent GP contractors, seven to social enterprises, and two to a PCT-managed service; one contract is shared by three different provider types. In one-fifth of the contracts awarded to the commercial sector there was no competition. The authors concluded that lack of data on cost, patient services, and staff makes it impossible to evaluate value for money or quality, and the absence of competition was a concern.⁴⁷

Provider values

The way that competitors work within a market system may also impact on the outcomes of competition.

Researchers in England examined how acute NHS hospitals build relationships and behaviour competitively. Thirty-five per cent of acute trusts participated in a survey. NHS trusts offering volume discounts, non-price competitive incentives or having a strong belief in performance being by 'payment by results' criteria were more likely to offer augmented services to secondary care purchasers over and above the contracted minimum. NHS trusts believing strongly in the importance of non-price factors (such as contract augmentation or quality) were more likely to offer customisation of generic services.⁴⁸

5.3 International evidence

Market characteristics

There are questions about whether healthcare as a sector has the features necessary for competition, regardless of the specifics of local contexts. Researchers from the UCLA School of Public Health examined whether healthcare systems have the conditions needed for competitive markets to work effectively. They suggest that healthcare lacks many important characteristics, such as appropriate comparative data and equality of access to provision:⁴⁹

Conclusions concerning the purported desirability of competitive markets are based on a number of assumptions... that typically are not fulfilled in the healthcare area. Once this is recognised, market mechanisms no longer necessarily provide the best way to improve social welfare.

Others, both in the UK and internationally, have argued that healthcare does include features appropriate for competition, but the literature tends to involve opinions, narratives and historical accounts rather than empirical comparisons.

Data and information systems

The most common finding about essential features for healthcare competition relates to access to data and information. It is argued that commissioners, providers and patients all need access to appropriate and detailed information to help them make choices, reduce costs and monitor quality over time.

For instance, researchers from the National Association of Health Data Organisations in the USA (NAHDO) suggest that high quality data sharing and dissemination strategies are important for fostering competition in healthcare. A literature review and case studies of existing initiatives that promote the collection and use of comparative information on provider cost and quality was undertaken.

Three common models for data sharing and dissemination were:

- provider-initiated initiatives developed through collaboration
- purchaser-initiated activities driven by a coalition of purchasers
- indirect collaboration-data-sharing initiatives between providers and purchasers with a significant facilitating or regulating role by a third group of stakeholders.⁵⁰

There are numerous examples of how access to data has been crucial in the development of competitive systems. From 2006, a national health insurance scheme became compulsory in the Netherlands. Managed competition for providers and insurers became a major driver in the healthcare system. Insurers now negotiate with providers on price and quality and patients choose the provider they prefer. To help patients make these choices, much effort has been put into making information on price and quality available to the public. The role of the government changed from directly steering the system to safeguarding the functioning of health markets. Financial measures intended to prevent sudden budgetary shocks and payment mechanisms are continuously adjusted.⁵¹

A team from Erasmus University in the Netherlands outlined the goals and effects of local healthcare policy between 1980 and 2000. The main goal of market oriented healthcare reforms was to increase efficiency and responsiveness to patient needs, while maintaining equal access. The feasibility of such reforms hinges on adequate methods of risk adjustment, product classification and quality measurement, an appropriate consumer information system and an effective competition policy.⁵²

While the majority of research focuses on hospital competition, some research on long-term residential care is also available. Researchers from Harvard Medical School suggest that more data infrastructure is needed to assess the value of competition and encourage fair competition in the long-term care sector.

Suggestions include:

- constructing standard measures of market boundaries
- broader dissemination of market and regulatory data
- linking survey-based data with market measures.⁵³

Some suggest that access to data needs to be improved within systems in order to get the most out of competition. For instance, the MEDSTAT Group from Washington reviewed the availability of data sources to study health plan competition in the USA. Based on a literature review and feedback from experts, the authors concluded that there is much more quantitative data available about HMO plans than other types of health plans. State health insurance filings are a key source of information but these lack information on beneficiaries in non-HMO plans. More data are becoming available about health plan quality.⁵⁴

Similarly in Israel, researchers suggest that information needs must be carefully evaluated, and that managed competition may not reach its potential or be realistic if the appropriate information streams aren't in place. Prior to 1995, Israel had four private, not-for-profit sick funds which competed without governmental control. From 1995 onwards laws were implemented to allow managed competition.

Researchers found that while a legal and structural framework for regulating competition was developed, in practice competition over the provision of statutory care was limited. The reforms encouraged cost cutting but did not improve other quality indicators and service developments.

The researchers suggested that the theory of managed competition contains unrealistic assumptions about the types of competitive behaviour that will result and the capacity of government and health providers to monitor quality.⁵⁵

Range of providers

Researchers in the USA have reviewed literature about the role of not-for-profit organisations in healthcare competition. They found that including not-for-profit agencies as competitors helps to regulate the competitive process. Competition from such organisations can create a positive spill over effect on the performance of the for-profit sector.⁵⁶

Researchers in the Czech Republic reviewed the conditions needed for market-oriented healthcare. Having a variety of provider types was likely to enhance competition sustainability.⁵⁷

Financing and management

A review of the relationship between competition and quality in healthcare in various European countries found that competition tends to be introduced to reduce costs and that quality is a secondary or incidental consideration. Competition has only been effective when new forms of managerial direction are implemented. The author concluded that competition appears less clearly associated with quality than with political control.⁵⁸

Researchers from Columbia University in the USA suggest that factors supporting healthy competition in healthcare include:⁵⁹

- mandating minimal requirements for plans
- research about how to assess the quality of care
- publication of quality of care information
- selective contracting and regionalising of services
- payment for clinician services.

6 Comparison with other models

There is a tension in the English proposals around creating a managed market versus allowing free competition.

Despite a detailed search, the research scan identified little empirical evidence comparing a managed market with free market competition.

There was also little research comparing collaborative and competitive systems. Lots of descriptive articles are available but empirical research is absent.

6.1 UK evidence

Researchers in England compared the concepts of a competitive internal market with a more collaborative system based on partnership. They found that co-operation and trust can play a central role in the efficient organisation of contractual arrangements in circumstances similar to those under which the NHS operates. However, there is little empirical evidence directly comparing cooperation versus competition in UK systems or elsewhere.⁶⁰

6.2 International evidence

Bedford Health Associates, who are management consultants in the USA, examined whether market driven or regulatory models best reduce cost and improve access to care. They concluded that both models have value and that a mixed model may be most beneficial.⁶¹

[The researchers] argue against supporting either extreme and instead favour a blended approach where the emphasis is on practicality rather than ideological exactness.

7 Summary

This section briefly summarises the key findings of the research scan in terms of the potential benefits and limitations of competition and the features that may best facilitate it.

7.1 Utilising competition

Competition is a tool that can be used to drive change in healthcare, especially when used as part of a broader set of initiatives to build and facilitate improvement.

Competition is a means not an end. It is a mechanism which, by engendering rivalry between alternative public and private providers, may drive down costs and / or improve the quality of goods and services delivered to patients.⁶²

7.2 Does competition improve quality in healthcare?

There is some evidence that competition could improve some aspects of quality and impact negatively on others.

Recent research from the UK suggests potential improvements in clinical outcomes that were not evident in earlier UK research.

Research from the USA and other countries has found that competition can reduce clinical outcomes and access.

Evidence from the USA suggests that competition can reduce costs for payers, providers and patients. In the UK there are some trends towards improved costs and efficiency.

To summarise, there is some evidence that competition is associated with:

- improved clinical outcomes in some settings
- reduced costs in some settings
- improved efficiency in some settings.

There is some evidence that competition can have negative impacts or mixed effects on:

- access
- equity.

There is no strong empirical evidence about the impacts of competition on:

- patient choice
- patient-centred care
- safety
- flexibility in supply or capacity
- innovation and improvement.

Table 1 summarises the findings of individual studies.

In all cases the evidence is reasonably sparse and may have methodological shortcomings.

Table 1: research evidence about impacts of competition in healthcare

Organisation affiliation	Year	Country	Competition type	Key findings
Clinical outcomes				
London School of Economics	2010	England	Hospital	Competition reduced mortality
University of Bristol	2010	England	Hospital	Competition reduced mortality
University of Bristol	2004	England	Hospital	No impact on death rates
Pennsylvania State University	2008	USA	HMOs	Competition reduced clinical outcomes
Pennsylvania State University	2005	USA	Hospital	Mixed effect on outcomes
Florida International University	2002	USA	Hospital	Mixed effect on outcomes, with some negative consequences
Philadelphia Veterans Affairs Medical Centre	2005	USA	Hospital	Mixed effect on outcomes, with some negative consequences
University of Debrecen	2004	US focus		Competition reduced clinical outcomes in the short term
Access and equality				
General Medical Council	2000	England	System	Fears over reduced access
CITIVAS	2010	England	System	Competition improved access
University of California	1998	USA	Hospitals	Mixed effects
Maastricht University	2010	Russia focus	System	Competition reduced access
University of London	1997	Russia focus	System	Competition reduced access
Institute for Clinical Evaluative Sciences	2005	Canada	System	Competition increases variation in quality of care
Professionalism				
London School of Economics	2010	UK	Hospitals	Competition may improve management quality
University of Medicine and Dentistry of New Jersey	2001	UK focus	System	Competition seen as costly and disruptive by staff
University of Southampton	1996	UK	System	Competition was viewed negatively by staff and patients
University of Brighton	2000	UK	System	Competition can lead to self-serving professional behaviour
University of Warwick	1997	UK	System	Competition and organisational change can lead to deprofessionalisation
University of Michigan	2008	USA	System	Competition may lead to more instability and stress for staff
Ministry of Health	2007	Mexico	System	Competition was associated with insufficient infrastructure and staff

Continued...

Table 1: research evidence about impacts of competition in healthcare

Continued...

Organisation affiliation	Year	Country	Competition type	Key findings
Patient satisfaction				
Southern Illinois University	2008	USA	System	Competition may improve patient satisfaction
Acceptance				
Urban Institute	2000	USA	System	Stakeholders may resist competition
University of Cincinnati	1999	USA	Hospital	Stakeholders may resist competition
Costs and efficiency				
London School of Economics	2010	England	Hospital	Competition reduces length of stay in hospital
National Health Service Consultant's Association	1995	England	System	Competition increased admin costs
University of Bristol	2010	England	Hospital	Competition reduces overall costs of hospital care
McKinsey consultants	2010	England	Providers	Mixed effects with potential to duplicate costs and cause inefficiency as well as some evidence of reduced costs
CITIVAS	2010	England	System	Competition improved financial management but NHS is incurring costs rather than benefits
Federal Trade Commission	2010	USA	System	Competition reduces costs, but full potential not reached
Kaiser	2006	USA	System	Competition has potential to reduce costs
University of Michigan	2009	USA	HMOs	Competition reduces out of pocket expenses
Carnegie-Mellon University	1995	USA	HMOs	Competition reduces out of pocket expenses
Pennsylvania State University	2008	USA	HMOs	Competition reduces out of pocket expenses, but may reduce overall quality
University of Rochester	1996	USA	Hospitals	Competition reduces overall costs
University of Alabama	2001	USA	System	Competition reduces commissioner costs
University of California	2005	USA	Nursing homes	Competition increases administrative costs

Continued...

Table 1: research evidence about impacts of competition in healthcare

Continued...

Organisation affiliation	Year	Country	Competition type	Key findings
Fragmentation and mergers				
Pennsylvania State University	2008	USA	HMOs	Competition was associated with fragmentation
Nordic School of Public Health	2010	Sweden	Primary care	Competition may hamper integration
University of Miami	1999	USA	Hospitals	Competition resulted in increased hospital mergers

7.3 What are the other outcomes?

Other consequences of competition observed in empirical research include:

- resistance among professionals, patients and other stakeholders
- role conflicts between managers and clinicians
- self-serving professional behaviour
- reduced professionalism
- fragmentation of services
- increased mergers.

Some argue that the economic benefits of competition may be outweighed by the costs of additional capacity required, administrative costs and negative consequences, but this varies by the type of service and market, and the evidence is sparse.

7.4 What system features need to be in place for competition to work?

The empirical evidence seems to suggest that competition helps to improve quality in some circumstances, but can impede it in others.

There is some literature examining the features that need to be in place to get the best from competitive markets, though this question has not been explored empirically in any depth.

There are some concerns that healthcare does not 'fit' within a market mentality and does not contain the characteristics needed for competition to flourish.

People have argued about this proposition. As such, the theoretical basis for market mechanisms in healthcare remains contested.

*Commonsense contracting of an existing private sector is different from a policy of proactive privatisation and marketisation. Underlying the two approaches is whether healthcare should be viewed as a human right best served by socialised provision or a private good requiring governments only to correct market failures and ensure basic care for the poor.*⁶³

Both the sceptics and enthusiasts tend to overstate the difference or similarity of healthcare to conventional markets.⁶⁴

Studies have found benefits from competition between hospitals where fixed price tariffs are in place, however there is limited research comparing and contrasting the combined effects of competition and price regulation in different environments.

Other important features include:

- adequate data systems for monitoring quality
- adequate information to allow patients to make informed choices
- having a wide range of providers available to compete
- appropriate management structures
- appropriate financing and monitoring.

7.5 How do managed markets and free competition compare?

There is little empirical research explicitly comparing managed competition versus free competition. Theoretical or descriptive material is available, but not detailed research studies.

7.6 How do competition and collaboration compare?

There is little empirical research explicitly comparing competitive systems versus collaboration, partnership, professionalism and integration. Descriptive articles are available outlining the pros and cons of each, but detailed research studies are sparse.

In England and other countries there is an increasing emphasis on facilitating competition between healthcare providers. Thousands of articles have debated the pros and cons of this and the feasibility and the acceptability to various cultures, policies, structures, patients and professionals. Empirical research studies are far less common and seem to suggest that there are both advantages and limitations with using competition as a driver to improve quality in healthcare. On one hand, clinical outcomes and costs may improve, whereas on the other fragmentation, professionalism, access and equity may be negatively affected. Competition may be one component of broader initiatives to support change, but is not a simple or sole choice.

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