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New Public Management and the Performance of the English NHS: A Case Study

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Abstract

New Public Management (NPM) and New Public Governance (NPG) are the leading theories of International Public Management (IPM). NPM is a trend that believes in the application of private sector theories and models to the public sector. NPM sees this application as positive for the performance and the quality of public services. One of these models is the model of competition, which is believed to improve efficiency and productivity, amongst other things. NPG, another important trend in IPM, doesn't agree with NPM on the benefits of competition. NPG states that public services must focus on cooperation and collaboration, as it is these models which allow for improved performance. This is because public services are social constructs rather than economic constructs. Therefore, this thesis chose to analyse the effect of competition on performance within a specific public service, namely healthcare. As one of the leading States applying NPM inspired reforms, England and its NHS, was the perfect case study to analyse the said effect.

As such, the thesis chose to combine a case study design with a mixed methods design. By utilising a mixed methods approach, the thesis could utilise concrete quantitative data, whilst still understanding the subtleties of the case study through qualitative data. Moreover, the mixed methods design allowed for data triangulation through the combination of descriptive statistics. Thus, firstly, it analysed five different performance indicators across time to identify time trends. It then followed by interviewing 5 experts and health professionals on the matter, to further understand the seen patterns. The results of the quantitative analysis are mitigated, leading to various conclusions. Similar results are found in the qualitative analysis, with competition being considered as negative by some, but also as an insignificant factor in the trends by others. Thus, the overall results of the research align with previous literature, with a mitigated conclusion on the effect of competition on performance.

Preface

I proudly present here my master thesis, 'New Public Management and the Performance of the English NHS: A Case Study'. This thesis is the final product of a Master of Science in International Public Management and Public Policy at the Erasmus University Rotterdam.

By focusing on the English application of NPM, specifically competition oriented reforms, the thesis remains within the field of international public management. It allows for future application and understanding of similar reforms across other public services, while still provide a new understanding of the latest example of NPM inspired reforms. By utilising both descriptive statistics and interviews, focusing on a mixed methods design within a case study, the thesis approaches the case from both quantitative and qualitative perspectives, allowing for data triangulation.

This thesis could not have come about without all the guidance and support that I have received. Therefore, I would like to thank my supervisor, Bert George, who has guided me throughout this process through his feedback and his enthusiasm for the discipline. I would also like to thank my colleagues of thesis circle and of master, who have supported me throughout the year. Finally, I would like to thank my parents, who have pushed me to produce something to be proud of.

Marine Wery

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List of Abbreviations

Accident & Emergency (A&E)

Acute Myocardial Infarction (AMI)

Consumer Assessment of Healthcare Providers and Systems Survey (CAHPS)

Care Quality Commission (CQC)

European Core Health Indicators (ECHI)

Healthcare Effectiveness Data and Information Set (HEDIS)

Health & Social Care Act (HSCA)

International Monetary Fund (IMF)

International Public Management (IPM)

New Public Governance (NPG)

New Public Management (NPM)

New Public Service (NPS)

National Health Service (NHS)

Office for National Statistics (ONS)

Public Choice (PC)

Public Value Management (PVM)

Organization for Economic and Cooperation Development (OECD)

Traditional Public Administration (TPA)

United States of America (USA)

World Health Organization (WHO)

1. Introduction

1.1 Background

"*From cradle to grave*" (Osborne, 2006: 378), so was expected of public services in England, in the era of Traditional Public Administration, throughout the twentieth century. Traditional Public Administration (TPA), a theory of the field of Public Administration, focused on the establishment of rules, and valued the professional tasked with service delivery. However, with the 1970s, a new trend of Public Administration emerged, that of New Public Management (NPM). The movement assumed that the application of private sector techniques to the public sector would allow for improved efficiency and effectiveness, within public services (Osborne, 2006). Whilst NPM championed private-sector mechanisms, it was also based on previous theories, such as the public choice theory or the principal-agent theory (Gruening, 2001). By the 1980s, Organization for Economic and Cooperation Development (OECD) countries recognized the emergence of the new trend, rushing to utilise it in their own services (Simonet, 2015). In 1991, Hood explained that the doctrine could be easily found in public services across England, Australia or New Zealand. The theory had thus gained recognition in the Anglo-Saxon world.

According to Hood (1991), NPM emerged as a marriage of different streams of thinking. On the one hand, there was new institutional economics which were built on the theory public choice, the theory of transaction costs and the principal-agent theory. On the other hand, there was the international scientific management movement, which focused on professional management. Thus, the theory of NPM aimed to be marriage of public-sector type mechanisms and private-sector type mechanisms. This translated into various elements and mechanisms. Whilst Hood (1991) defined NPM according to seven different characteristics, other scholars such as Rhodes (1999) utilised only six, or such as Pollitt (2003) used eight, as can be seen in **Table 1**. However, this thesis will focus on the seven elements defined by Hood. First, Hood defined the theory as focusing on hands-on professional management in the public sector. Second, NPM is characterised by explicit standards and measures of performance. Third, there is a great emphasis on output control. Following that, there are shifts to the disaggregation of units and to greater competition in the public sector. Finally, there is a stress put on private-sector styles of management, and a stress on greater discipline and parsimony in resources.

Table 1. Characteristics of New Public Management

Hood (1991)	Rhodes (1999)	Pollitt (2003)
Hands-on professional management in the public sector	Privatization	From input and processes to outputs and outcomes
Explicit standards and measures of performance	Marketization	More measurement and quantification
Greater emphasis on output control	Corporate management	From hierarchical multi-purpose organisations to more flat, specialised and autonomous organisations
Shift to disaggregation of units in the public sector	Regulation	From formal hierarchical relations to contracts
Shift to greater competition in the public sector	Decentralization	Widespread deployment of Market type mechanisms for the delivery of services
Stress on private-sector styles of management practices	Political control	Increased emphasis on customers and service orientation
Stress on greater discipline and parsimony in resource use		Broadening and blurring the frontiers between the public, the private and the voluntary sector
		A shift in value priorities away from universalism, equity, security and resilience, and towards efficiency and individualism

However, other scholars have defined NPM through models, rather than characteristics. In his book 'The New Public Management in Action', Ferlie (1996) explained that the varying characteristics of the NPM theory would influence different types and approaches to reform. The scholar describes four specific models of NPM. The first model is the efficiency drive. This specific model attempts to make the public sector more business-like, by focusing on the concept of efficiency. This model was linked with the Thatcher style political economy. The second model is the model of decentralization and downsizing. This trend can be found in both the public and private sector, in an effort to standardize. The third model is the model of the search of excellence. This model learns from the human relation school of thought. It can take

on a top-down approach, with the concept of cultural change, or the bottom-up approach, with the concept of the learning organization. Finally, the fourth model detailed by Ferlie (1996) is the model of public service orientation. In this model, the concern is placed on the quality of services, the reflexion of user concerns and the values.

Whilst there are varying definitions and understandings of NPM, certain core elements of NPM have become heavily utilised by States in their reform approaches, especially to address increasing health care expenditures. For many developed countries, health care expenditures account for a growing part of the Gross Domestic Product (Cooper et al, 2011). To tackle these growing costs, the States have thus utilised some NPM elements, by enacting market-based reforms. These reforms focused on increasing user choice and fostering competition between care providers (Cooper et al, 2011). Economic theories suggest that competition will allow for an increase in quality, in markets with fixed prices. According to these theories, as price is regulated, providers will compete on non-price elements, such as quality (Gaynor, Moreno-Serra & Propper, 2012). Furthermore, these economic theories expect competition to improve social welfare (Kessler & McClellan, 2000). Thus, competition was one of the avenues taken by policy makers in order to improve the performance of health care. "*Policy makers hoped that their efforts to encourage patient choice would create quality competition between hospitals and would prompt providers to improve their clinical performance*" (Cooper et al, 2011: F229). As previously stated, a shift towards greater competition is amongst the characteristics of NPM. Thus, by enacting market-oriented reforms, many States chose to adopt NPM-based reforms, restructuring their health care systems.

Nonetheless, it is Margaret Thatcher and her government's reforms that exemplified the NPM movement (Simonet, 2015). In 1989, Margaret Thatcher and her Conservative government published the White Paper 'Working for Patients (Nuffield Trust, 2018 A)', which proposed the introduction of a split between providers and buyers of care (Propper, Wilson & Söderlund, 1998). This split was introduced, with the 'National Health Service and Community Care Act' of 1990 (Nuffield Trust, 2018 A). The Act was revolutionary as it completely restructured the English health care system, by creating an internal market. This was defined as the first era of competition for the NHS, spanning from 1991 with the implementation of the internal market, until 1997 (Bevan & Skellern, 2011). The second era of competition for the NHS was initiated in 2001, with the 'Health and Social Care Act' (Bevan & Skellern, 2011). From 2001 onwards, the NHS endured several restructurings due to White Papers and further Acts. The general structure of the NHS and the level of competition within the system stayed

somewhat stable until the new decade, in 2010. The NHS had thus already endured two eras of competition, between 1991 and 1997, and between 2001 and 2010.

However, with 2012 came the latest Bill for the reform of the NHS, the 'Health and Social Care Act' which further amplified competition within the system (Nuffield Trust, 2018 A). The Bill was the subject of much controversy, as it would further amplify competition within the NHS. Given that studies analysing market effects on various players within the system generally concluded that both eras of competition were ineffective (Bevan & Skellern, 2011), the Bill was not well received. While competition was expected to improve the quality and the performance of the health care system, the two previous eras of competition had failed to bring about substantial positive effects. Furthermore, critics had already argued that competition was incompatible with the core values of the NHS (Davies, 2013). Thus, the Act faced some strong criticism, despite a lack of understanding of its impact. Many studies had been previously done on the two previous eras of competition, however none have analysed the impact of the 2012 Bill.

Hence, this research will thus complement previous research and literature on the impact of competition-oriented reforms on the performance of public services. Understanding the potential impact of competition is essential to understand performance in the public sector, and in health care, and its different dimensions. Thus, to understand the notion of performance and competition and the relationship between the two, the thesis will utilise the specific case of the English NHS and its reform. By analysing the performance of the English NHS in the periods preceding and following the introduction of a competition-promoting policy, before and after the Health and Social Care Act 2012, the thesis will fill the gap of literature on a qualitative and qualitative analysis of the effect of competition on performance in the public sector. The thesis will combine the use of performance indicators, as quantitative data, and interviews, as qualitative data, to fully understand the relationship between the two elements. By combining the quantitative data with a qualitative dimension, the thesis allows to further fulfil the gap in literature, which lacks a mixed approach to the analysis of the relationship.

1.2 Research Aim

The aim of the research is to identify the effect of NPM reforms, specifically competition, on public service performance in the case of the English NHS. Thus, the research will focus on one of the more emblematic cases, that of England's National Health Service. The research will

specifically analyse the impact of the 2012 Health and Social Care Act, which further developed competition within the NHS.

To analyse and identify this effect, the research will take a combined approach towards the case study. Thus, the research will combine a case study design with a mixed methods design. Mixed methods designs "*combine elements of qualitative and quantitative research approaches (e.g., use of quantitative viewpoints, data collection, analysis, inference techniques) for the purposes of breadth and depth of understanding and corroboration*" (Creswell & Plano Clark, 2011: 4). First, the research will analyse quantitative data on the performance of the NHS, and its evolution over the years. The research will combine statistical data collected by various organizations, such as the Nuffield Trust, the OECD, and the Care Quality Commission (CQC). The data provided will combine various dimensions of performance, namely efficiency, effectiveness, equity, patient experience and health outcomes. The research will analyse five final indicators out of 108 pre-selected indicators. These indicators will be analysed in a longitudinal descriptive manner, to identify a time pattern. Secondly, the research will analyse a series of five interviews conducted with experts in the field of performance of the NHS, researchers from the Nuffield Trust, as well as health care professionals from both macro and micro levels of the NHS. The interviews will be considered using a content analysis, through coding. The aim of the interviews is for the qualitative data to complete the quantitative data, to give a complete understanding of the case study and the effect of competition on performance.

The research has chosen to utilise a mixed methods design to execute its analysis of the case study. Mixed methods designs allow the research to combine the strengths of both quantitative and qualitative methods, while still offsetting their weaknesses (Creswell & Plano Clark, 2011). Quantitative research allows researchers to clearly define the quality of a relationship, whereas qualitative methods can fall short in this aspect. On the other hand, qualitative research allows the research to understand the context, which quantitative research often fails to do, an aspect which is especially important given the case study (Creswell & Plano Clark, 2011). Moreover, a mixed methods design allows the research to combine both deductive and inductive thinking, as is most often done in real life. This allows the research to anchor itself in both methods, and provide more relevance, given the case study aspect (Creswell & Plano Clark, 2011).

1.3 Research Question

'What is the effect of competition on performance in the English NHS?'

1.4 Partial Research Questions

In order to answer the main research question, the thesis will address partial questions. Partial questions will focus on elements of the main research question, and will allow to bring together necessary elements to answer the main research question. Moreover, these partial questions will structure the thesis, and will be divided into two types: theoretical and empirical partial questions. These partial questions are the following:

Overall research question. What is the relationship between competition and performance in the English NHS?

Theoretical question 1. What does the literature says about competition in the public sector and in healthcare particularly?

Theoretical question 2. What does the literature say about performance in the public sector and in healthcare particularly?

Theoretical question 3. What does the literature say about the relationship effect of competition on performance in the public sector and in healthcare particularly?

Empirical question 1. What does competition imply in the context of the English NHS?

Empirical question 2. What does performance imply in the case of the English NHS?

Empirical question 3. Is the theoretical effect of competition on performance confirmed in the specific case of the English NHS?

1.5 Scientific Relevance

The study of the effect of competition on performance in the case of the English NHS appears as interesting from both academic and societal standpoints. Nonetheless, it is the academic relevance which appeals to various disciplines and elements.

First and foremost, the study of the England's NHS and its performance after the 2012 reform is most relevant to the study of Public Administration. In order to analyse the case of the English NHS, the research will first have to understand the field of Public Administration. This will entail an analysis of the various theories of Public Administration, such as TPA, NPM and NPG. The thesis will thus compile the various concepts and theories of Public

Administration as described by Hood (Frederickson et al, 2012). Hence, the thesis will complement the existing literature on the different theories of Public Administration.

Moreover, having understood the general evolution of the theories and principles guiding the field of Public Administration, the thesis will focus on the theories of NPM and NPG. It will focus on the various characteristics given to the theories by Hood (1991) or Denhart & Denhart (2007). As such, the thesis will enrich the existing literature on the theories of NPM and NPG. By analysing the specific case of England and its NHS, the thesis will come to complete the existing research and literature on NPM, by analysing the impact of the theory on a public service system.

Furthermore, whilst the thesis will consider the various elements of NPM, it will specifically focus on the competition-oriented elements of the reforms. Competition has been used by several countries as a way to ensure higher public service performance (Andritsos & Aflaki, 2015), and as such, has been studied within the field of Public Administration. The impact of competition on public services has been previously analysed by Propper, Burgess and Gossage (2008), Kessler and Geppert (2005), and Cooper et al (2011). These researches have focused on various countries and their public services. Some of these researches have utilised varying vocabulary to explain the notion of performance, as utilised in the thesis. Whether it be quality of care, hospital performance or mortality outcomes, the different researches have all analysed the different outcomes of previous competition-oriented reforms. However, few have focused on England and its 2012 reform of the NHS. While Sanderson, Allen & Osipovic (2017) has analysed the reform, their research did not take into consideration the impact of the latest reform on the performance of the NHS. As such, the thesis will complement the existing literature on competition-oriented reforms, and specifically the 2012 NHS reform, by analysing the latest competition-oriented reform within England. Hence, it will provide further research into the impact of competition-oriented policies for public services on the performance of the said services.

Finally, whilst the research will focus on the specific case of the English NHS, the analysis and its results will be relevant to the field of International Public Management, as a whole. The field of International Public Management focuses on the management of public services as well as the management of services provided by international organisations. The use of competition-oriented policies for public services has been pushed by various international organisations, such as the International Monetary Fund (IMF) and OECD, to its Member States with emerging

and transition economies. Understanding the specific effects of competition management on performance is essential for these researchers established in international organisations. While these international organisations have produced various reports on previously implemented policies, the thesis would complement the existing research by providing a more recent and complete analysis. Furthermore, other international organisations such as the European Union could potentially turn towards competition-oriented reforms of their public services, as is already done for some, with the use of tenders (European Commission, 2018). As such, the thesis will complement the understanding of competition's effect on the performance of public services.

1.6 Societal Relevance

As one of the biggest expenses for most welfare state, health care systems are of importance for all actors of international and national societies. The impact of competition oriented policies on the performance of health care system is thus of importance for the general public, policy-makers, countries as well as international organisations.

In 2012, the Health and Social Care Act of 2012 further reformed the English NHS. Since it was passed, the Bill has seen quite the controversy. The Shadow Health Secretary Andy Burham criticised the Parliament's passing of the Bill, claiming that "*If the government continues on its current course, the NHS will be overwhelmed in the next Parliament by a toxic mix of cuts and privatisation*" (BBC News, 2014). This was echoed by Lord Crisp, the former NHS chief executive and former Permanent Secretary to the Department of Health, who explained that the Bill "*has tried to elevate the ideas of competition and the use of private sector, which are just mechanics, just mechanisms, as if they were the purpose*" (BBC News, 2012). Furthermore, Lord Crisp believes "*the great mistake the current government has made […] is that this is a terribly confused and confusing bill*". In fact, the general backlash towards the Bill extended to medical practitioners themselves. Paul Hobday, a NHS general practitioner, explained that with this Bill "*The democratic and legal basis of the English NHS and the secretary of state's duty to provide comprehensive health services have now gone*" (Hobday, 2013). Professor Terence Stephenson, President of the Royal College of Paediatrics and Child Health, also called for the dismissal of the Bill. The Professor explained "*Despite revisions and assurances from government, there remains widespread and deep concern amongst not only our members, but also the wider health profession and public about the Bill's impact on patient care*" (Brimelow, 2012). The position taken on by the Royal College was

prompted by an online survey, which saw 80 percent of its members voting for the withdrawal of the Bill.

Thus, with such widespread backlash concerning the potential impact of the Bill on the performance and quality of patient care of the NHS, it is essential to empirically analyse the impact of the Bill on various indicators. With such an analysis, the thesis could be of relevance for several different layers and actors of the society, both national and international. First and foremost, the thesis could be of relevance for citizens, impacting the perception of the Bill, the perception of the performance of the NHS but also the perception of policies. In its analysis, the thesis will provide considerable information on the impact of the Bill on performance, an element which will prove crucial to consumers and staff of the English health care system.

Furthermore, this thesis could be of relevance for policy-makers, national representatives and civil servants. By providing more empirical information on the impact of competition-oriented policies, the thesis will allow policy-makers to better understand the potential consequences, implications and impact of future policies. As such, this thesis could have an impact on the way policies and reforms of the public services are designed, including in health care services. By providing more information on the effect of competition-oriented policies, the research will hence also impact the perception of NPM inspired reforms. Analysing the impact from an empirical standpoint, the thesis could bring quantitative evidence, further informed by qualitative information, of the potential negative or positive impact of reforms inspired by one trend of Public Administration theories. Understanding the potential impact of the NPM theory on Health Care services could impact the way in which theses public services are run and designed.

Moreover, whilst the case of English NHS is of strong relevance for the English public and their policy-makers, the research could be of strong relevance for other welfare states across the globe. Countries such as the United States of America (USA), the Netherlands, New Zealand and Australia have also turned to NPM inspired reforms and competition-oriented policies. As such, understanding the impact of such reforms and policies on the performance of the services would be of relevance for their understanding of their own systems. The thesis would provide quantitative and qualitative data, on which to base the consideration of competition-based system restructurings or reforms.

Finally, this thesis could be of relevance for international organisations such as the OECD and the IMF. International organisations have long focused on the importance of health care,

and the different means to ensure its performance. As explained by Sanderson, Allen & Osipovic (2017), England is only one of the many Member States of the OECD which has opted for competition-oriented policies for its health care system. As such, the thesis and its analysis would be of relevance for the OECD and its various Member States. In 2012, the OECD published a report, 'Competition in Hospital Services' (OECD, 2012), which analysed the different OECD States and their implementation of competition within the health care system, and the impact of such policies. As such, the thesis would be of relevance for the OECD's further research on the matter, and would be a potential source of empirical data on the impact of competition in health care systems. Moreover, competition-oriented reforms were advocated by international financial organisations such as the IMF and the World Bank, for emerging or transitioning economies (Simonet, 2015). As such, it would be of relevance for these organisations to have an empirical analysis of the impact of such reforms on the economies and on the services they impact. This could provide more knowledge for these organisations in their potential campaign for the use of such reforms.

1.7 Research Approach

In order to answer its main research question, the thesis will first answer each of the partial research questions. In the conceptual review, the research will answer the first two theoretical research questions. The conceptual review will focus on the elements of competition and performance in the public health care sector. Having done so, the research will move onto its theoretical background, which will address the third theoretical research question, in establishing the effect of competition on performance in the public sector. Having answered the theoretical questions, the research will then follow up by answering the empirical questions, by focusing on the case of England and its NHS. As such, the research will analyse both the quantitative and qualitative data, in order to answer the three empirical research questions. After having answered the theoretical and empirical research questions, the research will be able to make its conclusions and establish the effect of competition on performance in the case of the English NHS.

2. Conceptual Review

In this chapter, the thesis will focus on establishing a clear understanding of the main concepts of the research, competition and performance. As such, the thesis will answer the first two theoretical research questions. First, the chapter will focus on the concept of competition, by answering the following research question: What does the literature says about competition in the public sector and in healthcare particularly? Having done so, the chapter will then follow by detailing the concept of performance. As such, it will answer the following research question: What does the literature say about performance in the public sector and in healthcare particularly? In order to answer these questions, the chapter will detail the existing literature on the concepts and the results of previous researches.

2.1 Competition

A. What is Competition?

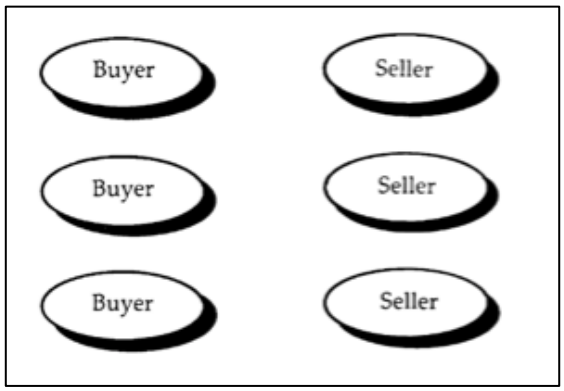
In order to understand the role of competition in public services, and in health care specifically, the thesis must first establish an understanding of the concept of competition. This is especially important as, according to Common, Flynn & Mellon (1992), the competitive or market rhetoric is often used in cases where the organisations do not compete at all. Thus, the scholars define a free market according to four core elements. Firstly, customers should be able to choose both the service to be provided and the provider. Second, providers should be allowed to attract customers, by producing the needs and wants of customers and by adjusting prices and/or quality. Third, there should sufficient information on the price, the quality and the availability of the service or good, to ensure the market can work adequately. Finally, there should be a sufficient number of providers and purchasers. This would entail free entry into the market and the absence of a monopoly. However, these characteristics are not always found in public service markets (Common, Flynn & Mellon, 1992). At a minimum level, to be defined as a competitive market, the provision of the service will be divided into two types of actors: providers and buyers.

Thus, the definition of competition as given by Common, Flynn & Mellon (1992) provides a clearer understanding of the concept of competition. However, there are different variations of competition. According to Ferlie, Cairncross & Pettigrew, there are four different types of markets: unregulated and regulated markets, pseudo and relational markets (Doherty, Horne & Wootton, 2014). Unregulated markets follow the assumption that markets allocate resources more efficiently than market systems. Regulated markets, however, attempt to

control the market by imposing professional and statuary regulations. Pseudo markets offer a limited competition, by merely being a symbol of change. Whereas relational markets attempt to maintain long-term relationships between buyers and providers. Furthermore, the literature provides two more possible distinctions between types of markets. As proven by Common, Flynn & Mellon (1992), the markets can either integrate or exclude consumer choice. It is possible for the authority to organise competition between providers while denying the consumer the possibility to choose their provider. This differentiation can have a tremendous importance on the strategy of providers, and the target of the strategy. Rather than targeting the consumer, in a market without consumer choice, the seller will focus solely on the buyer, as is seen in **Figure 1**. For instances, in public health services, without consumer choice, care providers, hospitals, would solely focus on commissions. In a market with consumer choice, as seen in **Figure 2**, the seller will focus its marketing campaign towards the consumer. When considering public health care, hospitals would thus focus on patients, rather than commissions. The other possible distinction for markets, as observed in Cooper et al (2011), is the possibility of a market with a fixed price or with unregulated prices. Public service markets can have pre-regulated and set prices, thus limiting the influence of the provider of the said price. However, public service market can also be open to price competition. Choosing one over the other can have an influence over the performance of the service.

Figure 1. Competitive Market without Consumer Choice

(Common, Flynn & Mellon, 1992: 17)

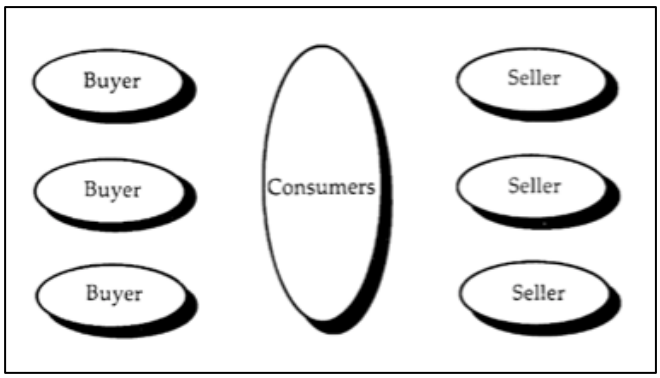


Finally, Le Grand (2007) provides a final type of market. The scholar defines quasi-markets as a type of market highly specific to public services. Quasi-markets are similar to normal markets in the sense that independent providers compete for customers within the market. However, the customers do not come to the market with their own resources. The services are paid for by the State, which allows all consumers to access resources equally.

Within quasi-markets, different kinds of providers can compete for buyers. Thus, the introduction of competition and quasi-markets for public services should not be confused with the privatization of public services. It is perfectly possible to introduce competition without the interaction of private providers. Thus, as demonstrated by Common, Flynn & Mellon, and Le Grand, there are various determinants of competition and markets, which should be taken into consideration when analysing public service competition.

Figure 2. Competitive Market with Consumer Choice

(Common, Flynn & Mellon, 1992: 18)



B. Theories of Competition within Public Services

The concept of competition can be taken from the theory of NPM. In NPM, one of the defining elements is greater competition in public services (Hood, 1991). As such, this concept is rooted in private sector economic theories. In the private sector, competition is believed to promote efficiency, innovation and consumer responsiveness (Boyne, 2003). Moreover, in a market with competing private firms, it is expected for firms to alter their product quality, by increasing it. In their study on the impact of product differentiation, Shaked & Sutton (1982) hypothesised a market with two firms and a market with three or more firms. In the market with two firms, the two firms selected distinct levels of quality and both enjoyed profit at the equilibrium. However, in a market with three or more firms, the firms all modified their initial levels of quality, to obtain the top level of quality. Thus, none of the firms chose levels of quality inferior to their competitors. This analysis shows that in a market with multiple firms, the overall level of quality will increase thanks to competition. This is echoed by Gaynor (2006: 462) who clearly states "*competition leads to more quality*" in fixed price markets.

Having understood the potential impact of competition in the private sector, the thesis must now understand the specificities of competition in public sector markets. According to Boyne (2003: 370), "*if the competitive behaviour is the key variable, then better services should be*

the result regardless of whether the rivalry is between public and private organisations, or between public organisations". Thus, classic private-sector markets mechanisms, where clients benefit from lower prices or improved quality or sometimes both, should also apply to public sector markets (Smyth, 1997).

However, as previously explained, markets can have varying features, which economists consider, providing different expectations for different markets. As mentioned, one of the types of markets are fixed price markets. When applied to markets with regulated prices, competition will lead to improved quality. Scholars largely derived the theory from analyses of industries subject to price regulation up until the 1970s and the 1980s (Gaynor, Moreno-Serra & Propper, 2012). In fixed price markets, providers are limited on dimensions, to compete for customers. In most market, providers can compete on both price and quality. However, in fixed price markets, providers are limited to compete on non-price dimensions, such as quality. This would thus lead to improved quality. When considering public services, most markets are designed in similar terms, with regulated prices, including in healthcare with tariffs for services. Therefore, the theory, which considers a potential increase of quality in fixed price markets, is applicable to public services, such as healthcare. This link between competition and quality as defined by economists is further echoed by Public Administration literature. Some scholars believe that, in fixed price markets, greater competition could lead to improvements in hospital performance (Cooper et al, 2011). Others further explain that competition between providers might induce both higher quality and efficient care (Andritsos & Aflaki, 2015).

Hence, it is clear that the model of private sector competition, when applied to the public sector, could bring about improvements in quality and efficiency, amongst other things. Providing more detail and a model specific to the public sector, Le Grand (2007) ties together the dimensions of competition and choice. The model considers the context of a competitive service market, with fixed prices, and a consumer able to choose where to obtain the service. In this scenario, choice combined with competition "*provides incentives for providers to offer a higher quality service efficiently and in a responsive fashion*" (Le Grand 2007: 43). Seeing as the providers do not have a price dimension on which to compete for customers, the providers will only be able to modify the quality of their product to attract customers. With this considered, if providers face adverse consequences such as loss of customers, they will be inclined to improve the quality of its services to regain some customers. In simpler terms, if customers are unhappy with their service, they can simply switch over to another provider with higher quality (Andrews, 2011). This will then leave the initial provider without the customer,

forcing the provider to improve quality to regain its market share. Thus, Le Grand's model should prove to have a significant impact on the quality of services.

However, according to Le Grand (2007; 2009), this model of competition between public service providers requires the combination of both choice and competition. One without the other will only give an illusion. When used appropriately, this model can lead to greater user autonomy, higher quality, greater efficiency, greater responsiveness and greater equity (Le Grand, 2007). There are those who argue that the combination of choice and competition in the public sector will lead to the transformation of the sector into a consumer market. Some believe that the language of buyer and seller, provider and consumer, do not belong in the public domain. One of the critics, Lipsey, utilises traditional economic theories, to prove that public service markets bring about externalities, agency and information problems (Le Grand, 2007). Le Grand is quick to dispel accusations of externalities and agency problems, while still recognising the presence of information issues within certain domains, such as healthcare.

2.2 Public Service Performance

To understand the role of performance within the public sector, it is first necessary to understand the concept itself. As such, the thesis will now analyse the literature's interpretation of the concept of performance. In doing so, it will answer the second theoretical research question: 'What does the literature say about performance in the public sector and in the healthcare sector?'.

A. Defining Performance?

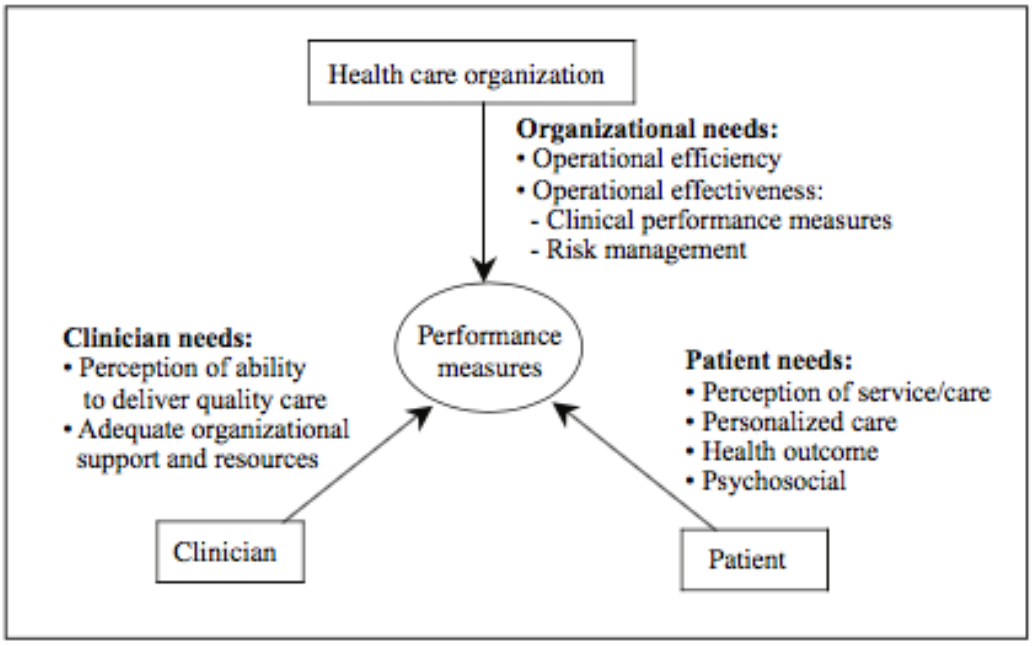
The concept of performance has always been central to the study of Public Administration. Nonetheless, with the rise of NPM, there was an increased focus on performance. As one of Hood's (1991) core elements of NPM, a greater focus on standards and measures of performance took major economies by storm. With NPM, the public sector has become focused on results, performance and efficiency (Jarrar & Schiuma, 2007), taking on the focus previously restricted to the private sector. Thus, given the trend, scholars have also given more attention to the concept of performance, and its role in the public sector. However, the concept can still seem elusive, and unclear. Depending on the interpretation or the sector, the notion of performance may not mean the same thing. As such, it is hard to pin down a precise definition of performance. Rather, each sector has a specific set of elements which it utilises to define performance. Bouckaert & Halligan (2008: 14) attempted to define performance as "*a set of information about achievements of varying significance to different stakeholders*". However,

the scholars recognise a variety of other definitions. This includes the definition given by the 1993 American Government, which entails "*a tangible operationalisation of results*" (Bouckaert & Halligan, 2008: 14). However, the scholars settle on defining performance as a general concept to define results and bottom lines.

Having provided a conceptual definition for public service performance, Bouckaert & Halligan (2008) also provide a more precise understanding of health care performance. The scholars explain that performance should be understand in terms of its span and of its depth, thus horizontally and vertically speaking. The depth focuses on the different levels of performance, the vertical dimension of performance. Cowing et al (2009) provide a simplified and clear version, explaining it as the individual, the clinician and the organization. These actors and their interactions within the system are defined within **Figure 3.** This model is further detailed and developed by Smith, Mossialos & Papanicolas (2008), in **Figure 4**. On the other hand, the horizontal dimension of performance is the span of performance, as defined by Bouckaert & Halligan (2008). This dimension includes the different elements in the cycle of performance, as seen as in **Figure 5.**

Figure 3. Needs and Expectations of Actors in Healthcare

(Cowing et al, 2009: 74)

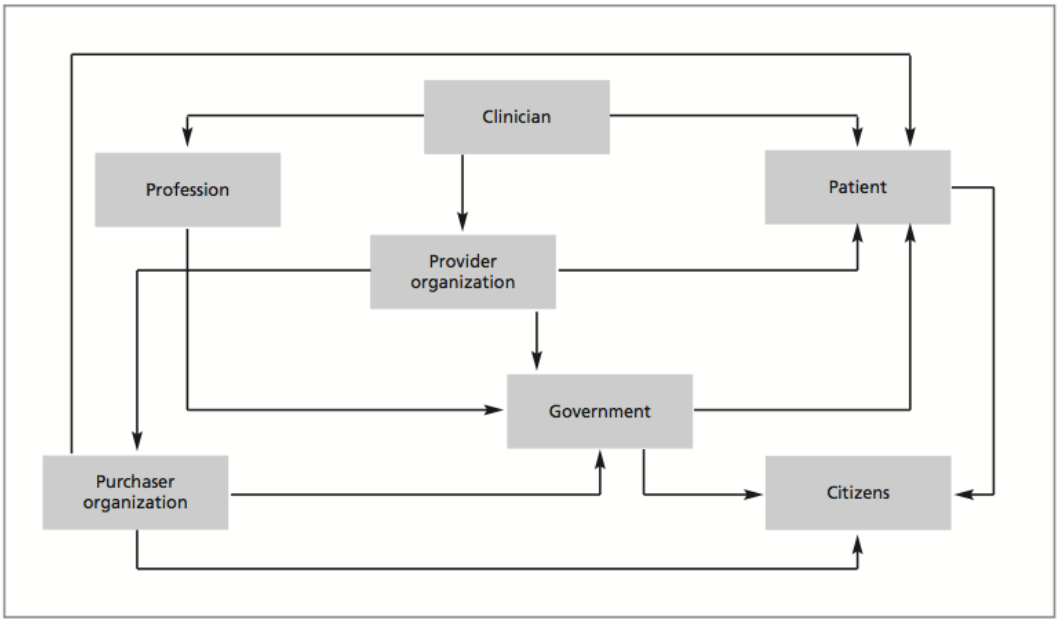


Thus, as detailed above, to understand performance, it is essential to understand both dimensions of performance. The first dimension of performance is the vertical dimension. There are two different understandings of the vertical dimension of performance. The clearer

design is that of Cowing et al (2009). The scholars define the levels as the triad of healthcare. The triad consists of the three main actors for the sector of healthcare. As can be seen in **Figure 3**, the triad is composed of the healthcare organizations, clinicians, which are composed of nurses and medical staff, and patients. Each of these actors have their own individual needs. These needs will inform different types of performance measures. For the healthcare organization, performance measures will focus on the efficient and effective use of resources. Thus, the measures will focus on costs or waiting times for services (Cowing et al, 2009). However, for patients, the focus will be placed on satisfaction, which will call for measures of patient satisfaction or health outcome measures. Finally, for the clinicians, the emphasis is also on satisfaction, but this time focused on satisfaction with ability to deliver care or adequate organizational support. Thus, each actor within the vertical dimension of performance has individual needs and expectations, which inform the understanding of performance within that sector.

Figure 4. Relationships within the Healthcare Sector

(Smith, Mossialos & Papanicolas, 2008: 2)



The second design of vertical performance is given by Smith, Mossialos & Papanicolas (2008). The scholars consider the actors previously recognised by Cowing et al (2009), but also integrate others. As can be seen in **Figure 4**, the scholars also recognize other actors, such as

provider organizations[1], purchaser organizations[2] and government, amongst others. Furthermore, the design also illustrates the accountability relationships existing between the actors. By integrating more actors in their design, Smith, Mossialos & Papanicolas (2008) also recognize the needs of said actors. For example, for the government, it is necessary to monitor the health of the nation, and to monitor the regulatory efficiency and effectiveness. Thus, similarly to Cowing et al (2009), Smith, Mossialos & Papanicolas (2008) recognise various actors within the vertical dimension of performance. This shows that performance must also be understood by taking into consideration the actors within the system and their needs.

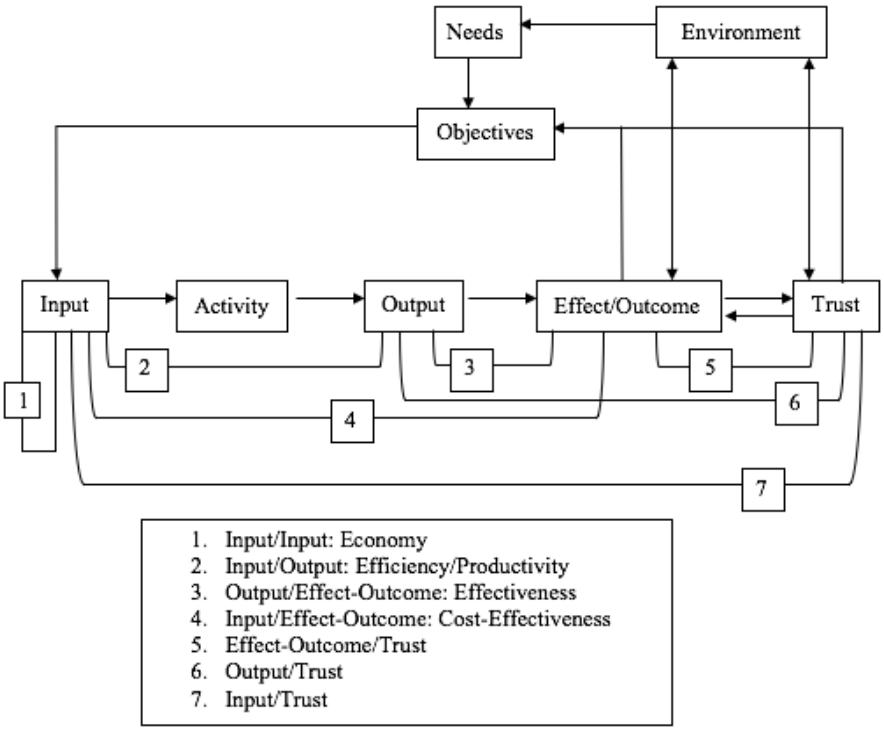
Furthermore, as defined by Bouckaert & Halligan (2008), the second dimension of performance is the horizontal dimension. This dimension is the span of performance. The scholars explain the span of performance, by detailing the various elements of the cycle of performance. Furthermore, they detail the relationships between these elements, as seen in **Figure 5**. The figure contains several elements. The first element is inputs, which are the resources available to the organization. Inputs influences the activities, which utilise the existing resources. The third stage is the outputs. Outputs are defined by Marr (2009: 5) as "*the specific deliverables the organization will produce to achieve its aim".* These outputs lead to outcomes or effects, which are the specific aims having an impact (Marr, 2009:5). The fifth element, trust, can both influence or be influenced by the outcomes. The figure also recognizes the role of the environment, the objectives and the needs. These three elements provide a link with the vertical dimension of performance. The environment, its needs and thus objectives are all elements defined within the vertical dimension of performance. As they still influence the cycle, they must be integrated within the horizontal dimension. Thus, the environment, its actors, their needs and objectives are elements that can be found in both the horizontal and vertical dimensions of performance. By recognizing the environment, the horizontal dimension also recognizes the role of the environment in defining the needs and thus the objectives. These objectives will influence the aim of the organization and thus the entirety of the cycle. In their design of the span of performance, Bouckaert & Halligan (2008) also provide the definition of

[1] Provider organizations are groups, composed of multiple providers. In the NHS, this would be groups of hospitals. In previous legislations, two types of organizations were differentiated. This distinction was abolished with the 2012 HSCA.

[2] Purchaser organizations, also called buyer organizations, are groups of commissions. Commissions are defined on the basis of territory and can thus be grouped by region. The size of these commissions and their groupings vary according to legislations, and thus the strength of competition.

the relationships between the various elements. For example, as can be seen in the figure's legend, the division of the input by the output equates to the concept of efficiency and productivity. The span of performance must be understood not only by the elements it contains but also the relationship between these elements.

Figure 5. Span of Performance in the Public Sector
(Bouckaert & Halligan, 2008: 16)



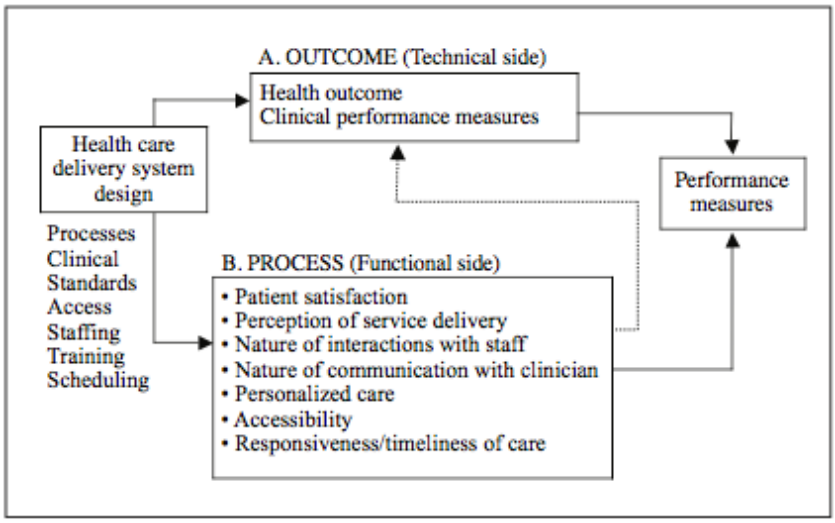
Hence, performance is a complex concept, which must be understood in a specific context. It must also be understood from a horizontal and vertical standpoint, to fully capture its complexity. Nonetheless, its measurement and management has become essential to the public sector. To be measured and managed, performance must thus also be understood through performance indicators and their categories.

B. Defining Performance through Performance Categories and Indicators?

Looking at the different understandings of performance, it becomes apparent that performance must be measured. The different elements of the performance cycle all require a quantitative measure. Thus, to fully understand and define performance, it must be understood through measures of performance: performance indicators. Performance indicators are quantifiable and specific measures of public services, which indicate the performance of the system. To provide

more precision, most international organizations or States have designed specific performance indicators for each sector and organisation. As explained by Nyhan & Marlowe (1995), this is because most indicators are unique to the specific organizational unit. As such, most countries have developed their own performance indicators, for their respective organisations. Certain international organisations such as the OECD and the World Health Organisation (WHO) have also continuously catalogued the status of health care across countries through different indicators. Thus, performance indicators are a common way to understand performance within public services, and public health services.

Figure 6. Determinants of Healthcare Performance (Cowing et al, 2009: 74)[3]



These indicators can be tied to different categories and different phases of the performance cycle. As demonstrated by Bouckaert & Halligan (2008) in **Figure 5**, certain indicators can be explicitly linked to a stage in the performance cycle. Some scholars have thus categorized indicators according to the phases of the performance cycle described by Bouckaert & Halligan (2008). Amongst those scholars are Smith, Mossialos & Papanicolas (2008), who differentiate between outcome and process measures. They explain that the different categories have their advantages and their disadvantages. Outcome measures are often more meaningful to the stakeholders. This is especially true for patients as the attention is directed towards them. Moreover, these measures are not easily manipulated. However, these measures are difficult to come by, as it takes time to collect them and they require large samples. They can also be ambiguous and difficult to interpret. On the contrary, process measures are easily interpreted

[3] Clinical performance measures are measures of health care performance.

and easily measured. They do not require large samples, as do outcome measures. All the same, these measures are very specific and can quickly become dated or be easily manipulated. Hence, while both outcome and process measures have their advantages, they also have some downfalls. In their research, Cowing et al (2009) also recognised different categories of indicators. Defining them as determinants, the scholars recognised the potential link between phases in a cycle and indicators. Cowing et al (2009) differentiate between outcome and process indicators, using as examples: accessibility and responsiveness for process indicators, and health outcomes as outcome indicator. Thus, as shown in **Figure 6**, the scholars also associate different indicators to two potential categories. Looking at both researches, it becomes apparent that certain indicators can be distinguished as outcome indicators and others as process indicators. However, there is a multitude of indicators.

In an effort to understand the wide range of performance indicators, the thesis has analysed previous researches and their used indicators. The thesis considered twenty different studies, all focused on performance in the public sector. The indicators used by each study was catalogued in **Table 2.** To concentrate only on indicators most commonly used, the thesis has excluded any indicators found in two or less studies. The table has been arranged, ranging from indicators most used on the top row to indicators less commonly used at the bottom row. Hence, as seen below in **Table 2**, ten indicators appear throughout the literature analysed. In the studies, the most utilised indicators were the efficiency and effectiveness indicators. Respectively, those indicators refer to the ratio between inputs and outputs (Boland & Fowler, 2000; Bouckaert & Halligan, 2008), and the achievement of formal objectives (Andersen, Boesen & Perdersen, 2016) and the relationship between outputs and outcomes (Bouckaert & Halligan, 2008). Indicators for equity and accessibility are also commonly found in research. According to Klassen et al (2010), equity can be associated with fairness, relating to the distribution of services fairly across the population, regardless of individual characteristics. Accessibility establishes "*the extent to which services are available and accessible*" (Klassen et al, 2010: 49), and is often associated with equity, often as a sub-dimension of equity. Some characteristics, which could have been expected to have similar recognition, had different levels of use, such as quality and productivity, often labelled as quantity. While some indicators such as efficiency were strongly used, others, such as accessibility, flexibility and safety, were less common. Flexibility, as explained by Purbey, Mukherjee & Bhar (2007), refers to the extent to which a service can adapt and change, and with how much ease it can do so. Moreover, safety is the prevention, avoidance, reduction or minimization of harm to the client (Klassen et

al, 2010). Responsiveness, on the other hand, "*captures aspects of health system behaviour not directly related to health outcomes such as dignity, communication, autonomy, prompt service, access to social support during care, quality of basic services and choice of provider*" (Smith, Mossialos & Papanicolas, 2008: 2). More precisely, responsiveness is defined by Veillard et al (2005: 490) as the "*degree to which a hospital is responsive to community needs, ensures care continuity and coordination, promotes health, is innovative, and provides care to all citizens irrespective of racial, physical, cultural, social, demographic or economic characteristics*". Finally, indicators such as patient experience had varying understandings in the studies, but commonly referred to the satisfaction and experience of patients.

Table 2. Performance Indicators Utilised Within Literature

Performance Dimensions	Studies & Mentions of Dimensions																				
	Total Mentions	Davis et al (2013)	Klassen et al (2010)	Purbey, Mukherjee & Bar (2017)	Griffith et al (2002)	Spano & Aroni (2018)	Bouckaert & Van Dooren (2009)	Smith, Mossialos & Papanicolas (2008)	Brignall et al (1991)	Lynch & Cross (1991)	De Bruijne (2002)	Van Thiel & Læuw (2002)	Veillard et al (2005)	Cowing et al (2009)	Kelley & Hurst (2006)	Elg, Broryd & Kollberg (2013)	Osborne et al (1995)	Andrews, Boyne & Walker (2011)	Le Grand (2009)	Verbeeten (2008)	Boland & Fowler (2000)
Efficiency	16	■		■	■		■	■	■		■	■	■	■	■		■	■	■	■	■
Effectiveness	16	■	■	■		■	■				■	■	■	■	■	■	■	■	■	■	■
Quality	13			■	■	■		■	■		■			■		■	■	■	■	■	■
Equity	8	■	■			■		■				■			■		■	■			
Accessability	7		■						■					■	■	■	■		■		
Productivity	6							■	■	■	■							■		■	
Patient Experience	6		■		■					■			■	■					■		
Responsiveness	5							■	■				■		■						■
Safety	5		■	■										■	■				■		
Flexibility	5			■					■	■											■

Thus, it is clear from analysing a set of studies that certain indicators of performance have garnered more attention than others. The indicators of effectiveness, efficiency, equity and quality are the most utilised, averaging between 16 and 8 mentions. Others such as flexibility, safety, and responsiveness have received far fewer mentions. This can potentially be explained by the understanding of these indicators by some scholars. Responsiveness could be understood as part of effectiveness. Similarly, safety and flexibility could be understood as a part of efficiency or outcomes. Thus, certain indicators have seen a more unified definition, garnering more attention. These indicators, such as efficiency, effectiveness and equity, have thus been utilised in more studies. Quality has also been heavily used by studies. However, it has been utilised by scholars and health professionals as a synonym of performance. For the research, the thesis has chosen to focus on five key dimensions. It will focus on efficiency, effectiveness, equity, patient experience, and health outcomes. Whilst health outcomes are not one of the dimensions utilised by the literature, Quality Watch, the independent think-tank which analyses the NHS' performance, integrates health outcomes as a major section of its indicators. Thus, the thesis chose to select it as its final dimension. These five dimensions provide a comprehensive overview of performance, for both a healthcare professional and a patient.

Having analysed the literature, the thesis now has a clear understanding of the conceptual definition of performance and its dimensions. Moreover, by reviewing the existing literature, the thesis can now capture the subtleties of performance indicators and the categories they belong to.

3. Theoretical Background

In this chapter, the thesis will focus on the theoretical effect of competition on performance in public services, especially in health care services. As such, it will answer the final theoretical research question: What does the literature say about the effect of competition on performance in the public sector and in healthcare particularly? Thus, the chapter will establish the theoretical ties between competition and performance, as well as detail previous empirical analyses.

As explained in the previous chapter, economic literature and its theories believe that competition will bring about improved service quality and performance in the service industry. These theories remain in the realm of economics. However, they have transpired and influenced the theories of Public Administration. Two theories have analysed the theory of competition in public services, NPM and NPG. The two theories have diverging perceptions of the effect of competition on the performance of public services. As such, both theories could provide an explanation for the outcome of market-oriented reforms, specifically that of England. As such, it is essential to consider both and explain the relationship between competition and performance in both perspectives.

3.1 New Public Management and the Effect of Competition on Performance

As seen in Chapter 2, there is substantial economic theoretical and empirical evidence to show that competition can have a positive impact on service performance. This link, found in economics, between competition and performance has lead scholars in the field of Public Administration to analyse its potential impact on public services. This analysis has been done by various theories with varying results. One of the strong advocates of competition in the provision of public services is NPM. As explained in Chapter 1, and in **Table 1**, NPM is largely characterized by private-sector management methods, applied to the public sector. This translates in the perception of citizens as consumers or customers, and the institutional structure as market-like (Wiesel & Modell, 2014).

More specifically, NPM partially finds its theoretical basis theory in the theory of Public Choice (PC) (Gruening, 2001). One of the key proposition of PC is that competition leads to better organizational performance. As explained by Boyne (1996), in PC, competition is necessary for allocative efficiency and technical efficiency. Similarly to the private sector, in the public sector, competition is believed to lead to higher performance. The benefits of competition in both the private and public sector are directly linked to monopoly. In a

monopolistic market, the provider has absolute control, which leads to oversupply and inefficiency. Public service provision in a non-competitive market is thus the equivalent of a monopolistic market. With a single provider, there is no possibility for competition on either price or qualitative dimensions. In order to bring about an efficient distribution, competition must be implemented. Thus, the premise of PC is that competition allows to improve allocation.

When acknowledging the role of PC in the definition of NPM, it becomes apparent that NPM would expect a positive effect of competition on performance. As such, one of the potential hypotheses for the effect of competition on performance in public services, and healthcare specifically, is a positive effect. If the results show a positive effect, the thesis will thus acknowledge the relevance of the NPM theory for the understanding of the relationship.

H1A: Competition will positively influence efficiency indicators of health care performance

H2A: Competition will positively influence effectiveness indicators of health care performance

H3A: Competition will positively influence equity indicators of health care performance

H4A: Competition will positively influence patient experience indicators of health care performance

H5A: Competition will positively influence health outcome indicators of health care performance

3.2 New Public Governance and the Effect of Competition on Performance

However, the belief that competition could have a positive influence on public service performance is not one agreed upon by all Public Administration theories. Several theories were developed after NPM, amongst which New Public Service (NPS), New Public Governance (NPG) and Public Value Management (PVM). The common trend was a completely different theoretical basis and belief. NPS and NPG were developed in the period after the wave of reforms influenced by NPM, as recognition that public managers had begun to make decisions, and thus 'steer the boat', rather than simply implement policies, 'rowing the boat' (Denhart & Denhart, 2000). The increasing trend of decentralization and privatization had left the society fragmented, with little communication between elements. In reaction to this trend, NPG and NPS focused on governance, cooperation and the establishment of clear models of society and community (Denhart & Denhart, 2000). Where PVM can be seen as a different strand of the post-NPM theories, NPG and NPS can be strongly tied together with very similar

beliefs. NPG is globally recognized as the third strong paradigm of Public Administration, with NPS often considered as a strand of the overarching paradigm due to its similar bases. Both theories underline the need for cooperation and collaboration, through relationships based on trust (Xu, Sun & Si, 2015; Denhart & Denhart, 2007). They also both call for a dispersion of power, based on the principles of democracy. Thus, the theories do resemble each other, yet still differ as can be seen in **Table 3.** For its analysis, the thesis will consider NPS as a strand of the overarching NPG, and thus focus on NPG. While NPG does present itself as an opposite of NPM, the NPS variant provides a stronger differentiation, which the thesis will consider, as can be seen in **Table 4.**

Table 3. New Public Governance & New Public Service

(Xu, Sun & Si, 2015: 13)

	New Public Governance	**New Public Service**
Value Orientation	Democracy & efficiency	Democracy
Theoretical basis	Contractualism, Integrity theory, collectivism	Democratic theory, civic theory, humanistic theory of organization, postmodern administrative theory
Behaviour	Citizen independence, public deliberation, polycentric governance	Cultivation of government service spirit, cooperation with third sector
Role of citizen	Participate in decision	By the service of the citizens

Table 4. New Public Management & New Public Service

(Denhart & Denhart, 2007: 28-29)

	New Public Management	**New Public Service**
Theoretical foundations	Economic theory	Democratic theory
Vision of citizens	Customers	Citizens
Role of government	Steering – Acting as a catalyst to unleash market forces	Serving – Negotiating and brokering interests among citizens creating shared values

Mechanisms used to achieve policy goals	Creating mechanisms and incentive structures to achieve policy objectives through private and non-profit agencies	Building coalitions of public, non-profit and private agencies to meet mutually agreed upon needs
Accountability approach	Market-driven	Multifaceted – Must attend to law, community values, political norms, professional standards and citizen interests
Organizational structure	Decentralized public organizations with primary control remaining within the agency	Collaborative structures with leadership shared internally and externally

Thus, with NPS' focus on cooperation and collaboration, NPG separates itself from the trend of markets and competitive reforms as a mean to ensure performance. It does so by first rejecting the perceptions of citizens as customers, as is done in NPM. Moreover, NPS rejects the imbalance of power that is found in consumerism, whereby consumers or citizens only have an impact through their accumulated choices (Denhart & Denhart, 2007). However, the main element of criticism that NPS hails towards NPM and its markets, is the notion that public services are a political construct rather than an economic construct. As such, service performance can only be reached through optimized political structures, rather than economic structures. As echoed by Osborne, Radnor & Nasi (2012), the focus has been turned to collaborative relationships rather than competitive relationships, as a mean to ensure effective public services. NPS aims to establish cooperation between service providers and citizens, which allows for optimal performance and allocation. As O'Toole (2015) explains, cooperation through networking and network management has been found to have a positive influence on performance.

Thus, through NPS, NPG brings forward an alternative model of public service delivery designs, in the form of collaboration and co-production. The theory believes that it is in these conditions, those contradictory to competition, that will bring about performance. In its criticism of markets and competition, NPG thus assumes a negative relationship between the delivery design and the performance it entails. As such, the thesis can thus infer that NPG will assume a negative effect of competition on performance. This assumption can hence inform the hypotheses for the case of the public service sector and healthcare specifically.

H1B: Competition will negatively influence efficiency indicators of health care performance

H2B: Competition will negatively influence effectiveness indicators of health care performance

H3B: Competition will negatively influence equity indicators of health care performance

H4B: Competition will negatively influence patient experience indicators of health care performance

H5B: Competition will negatively influence health outcome indicators of health care performance

3.3 Previous Studies on Competition and Performance in the Public Sector and the Literature Gap

Having understood the perspectives of Public Administration theories, NPM and NPG, on the effect of competition on performance, the thesis will now establish the results found in previous studies. Thus, the thesis analyses ten studies focused on the impact of competition, with all types of competition measures, on performance in the public sector, across various types of services, including healthcare. The thesis has also chosen to analyse studies focusing on varying countries, such as the USA or China. The results of the studies and their chosen measures are found in **Table 5.**

England and its multiple reforms of the NHS is one of the most heavily studied cases. The first research to analyse the relationship between competition and performance was a study by Propper, Burgess and Green (2004). The scholars utilise the rate of 30-day acute myocardial infarction (AMI) mortality as an indicator for health care performance. The indicator would go on to be used by other studies and scholars. Based on the indicator, the scholars found that higher competition was linked with a higher mortality rate. Thus, there was a negative relationship between competition and performance. Later, in 2008, Propper, Burgess and Gossage further complemented the earlier study of the NHS. Utilising the same indicator of the rate of 30-day AMI mortality, the scholars also analysed the relationship between competition and performance. In this study, the results differed slightly from the previous study. Both hospitals with competition and hospitals without competition saw a decrease of mortality. The pattern was similar for both types of hospitals, and thus for conditions of competition or absence of competition. However, there was a slightly more significant decrease in hospitals without competition (Propper, Burgess & Gossage, 2008). At the end of the decade, Bloom et al (2010) brought on a new approach to the analysis, by focusing the relationship between competition, management quality and performance of health care services. The

scholars first associated a higher quality of management with improved health outcomes, such as lower mortality rates. Moreover, the scholars associated increased competition with a higher quality of management. As such, the scholars established a positive link between increased competition, the improved quality of management, and better health outcomes.

In 2011, Cooper et al continued the previously established trend of analysis, by using the 30-day AMI mortality rate to analyse the performance of the NHS during its second era of competition. The results of the research show that higher competition was associated with a faster decrease of the rate of 30-day AMI mortality. Furthermore, the scholars believe that this decrease in AMI mortality is linked to the increase in competition in care. They explain that increased competition could have prompted hospitals to take steps to improve their performance, which was reflected in the evolution of the chosen indicator. That same year, Gaynor, Laudicella & Propper (2011) took on a different approach to the concept of competition and its impact on health care services. Their research analysed the impact of mergers. Mergers could be associated by lower competition, due to the loss of one or more providers. In order to assess the impact of the mergers, the scholars analysed the impact of the activity of health care systems, focusing on elements such as total admissions, and the length of stay. The results showed a fall in the activity of health care providers post-merger. Whereas the mergers were tied to a fall in the activity of providers, they had no impact on the length of stay. Thus, looking at England, the results of its varying analyses do not show a coherent picture. The researches by Propper, Burgess & Gossage (2008), and Propper, Burgess & Green (2004), both show a negative impact of competition on the performance of healthcare. However, both researches utilise the same indicator, which could limit the explanatory value of the researches. Furthermore, the remaining researches also fail to provide a coherent understanding of the relationship. Thus, to understand the relationship between competition and performance in England, further research would be essential.

As another one of the heavily documented cases of competition, the USA was also analysed. Kessler & McClellan (2000) chose to analyse relationship within the American healthcare, Medicare. To do so, the scholars decided on two different indicators: AMI mortality and heart failure mortality. The results showed the evolution of competition and its influence on performance. According to the scholars, in the period before competition, prices were high and health outcomes were low. Yet, in the period post-competition, the prices had lowered but as had the health outcomes. Another study by Scanlon et al (2008) also analysed the impact of competition on the USA. However, in this study, scholars chose to utilise quality indicators

from the Healthcare Effectiveness Data and Information Set (HEDIS) and Consumer Assessment of Healthcare Providers and Systems Survey (CAHPS). This time, the results showed no significant relation between competition and performance. Thus, once again, the results of different researches focusing on one State brought out varying results. This difference could be explained by the variation in indicators and time frame.

Whilst England and the USA are known cases of competition-oriented policies, such policies were also widespread throughout Europe. As such, Berta et al (2016) analysed the impact of competition on the performance of health care in the region of Lombardy in Italy. In the 1990s, regional governments, such as the government of the region of Lombardy, implemented reforms which allowed patients to choose health care provider, in an attempt to increase competition. Thus, Berta et al (2016) utilised a variety of indicators, such as the rate of hospital 30-day mortality in-ward, to analyse the impact of competition on the performance of health care services. The results of the research showed little influence of increased competition on the performance of health care services. Moreover, Heijink, Mosca & Westert (2013) analysed the impact of regulated competition on the efficiency and quality of care in another European State, the Netherlands. In order to do so, the scholars analysed the impact of competition on cataract surgeries. The research found that the volume of performed cataract surgeries increased by 34 percent over a four-year period. Furthermore, the research analysed the impact of the quality of cataract surgeries, by analysing the rate of errors. In the two years analysed, 2008 and 2009, results were quite similar, only differentiated by 0.13 percent.

Finally, while competition-oriented policies were mostly as Western and Anglo-Saxon models, Pan et al, (2015) analysed the impact of competition on the Chinese system of healthcare. In order to do so, the scholars analysed the emergency room mortality rate, the observation room mortality rate, as measures of performance. The results showed no negative relation between competition and performance. On the contrary, there were several strong relations with outpatient[4] outcomes. Nonetheless, the results observed no impact on inpatient[5] outcomes

[4] Outpatients are patients which have not been admitted into the hospitals.

[5] Inpatients are patients which have been formally admitted into hospital based on doctor's orders.

Thus, looking at the various empirical researches having studied the relationship between competition and performance have brought out varying sets of results. Certain researches have been able to observe positive relations, whilst others have seen clear negative correlations. Yet, some studies have found no correlation, no relationship between competition and performance. Thus, the literature and its analysis of the relationship across various contexts and various countries does not allow to clarify the relationship.

Table 5. Previous Empirical Research on Public Service Competition

Authors	Title	Journal	Type of Competition	Indicator(s)	Results
Propper, Burgess & Green (2004)	Does Competition Between Hospital Improve Quality of Care?	Journal of Public Economics	Payer-driven competition	30-day AMI mortality rate	Negative impact on performance. Hospitals with higher competition had higher mortality rates
Propper, Burgess & Gossage (2008)	Competition and Quality: Evidence from the NHS Internal Market 1991-9	The Economic Journal	Internal market competition	30-day AMI mortality rate	Hospitals with competition and hospitals without competition experienced a decrease in mortality. Decrease was slightly more significant in hospitals without competition.
Bloom et al, (2010)	The Impact of Competition on Management Quality: Evidence from Public Hospitals	National Bureau of Economic Research	Internal market competition	30-day AMI mortality rate	High competition linked with higher health service performance

Cooper et al, (2011)	Does Hospital Competition Save Lives? Evidence from the English NHS Patient Choice Reforms	The Economic Journal	Internal market with fixed prices	30-day AMI mortality rate	Higher competition associated with faster decrease of mortality rate
Gaynor, Laudicella & Propper (2011)	Can Governments Do It Better? Merger Mania and Hospital Outcomes in the English NHS	National Bureau of Economic Research	Mergers as decrease in competition, due to lower fragmentation and thus less competition due to smaller number of hospitals	Total admissions, Length of stay	Post-merger, fall in activity. No impact on length of stay
Kessler & McClellan, (2000)	Is Hospital Competition Socially Wasteful?	The Quarterly Journal of Economics	Competition amongst providers due to insurances as buyers of care	AMI mortality rate, Heart failure mortality rate	Before competition, high costs and low outcomes. After competition, lower costs and lower outcomes
Scanlon et al, (2008)	Does Competition Improve Health Care?	Health Policy	Health Maintenance Organizations competition	HEDIS and CAHPS indicators	No evidence of a significant relationship between competition and performance
Berta et al, (2016)	The Association of Asymmetric Information, Hospital Competition and Quality of Healthcare:	Journal of the Royal Statistical Society	Internal market with consumer choice	Hospital 30-day mortality in-ward	No influence over performance

	Evidence from Italy				
Heijink, Mosca & Westert, (2013)	Effects of Regulated Competition on Key Outcomes of Care: Cataract Surgeries in the Netherlands	Health Policy	Internal market with fixed prices, and insurances as buyers of care	Volume of cataract surgeries, Error rate in cataract surgeries	Increase in volume of surgeries. No significant impact on error rate.
Pan et al, 2015	Does Hospital Competition Improve Health Care Delivery in China?	China Economic Review	Internal market with incentives for the entrance of private capitals	Emergency room mortality rate, observation room mortality rate	No negative relation. Positive relation with outpatient outcomes. No impact on inpatient outcomes.

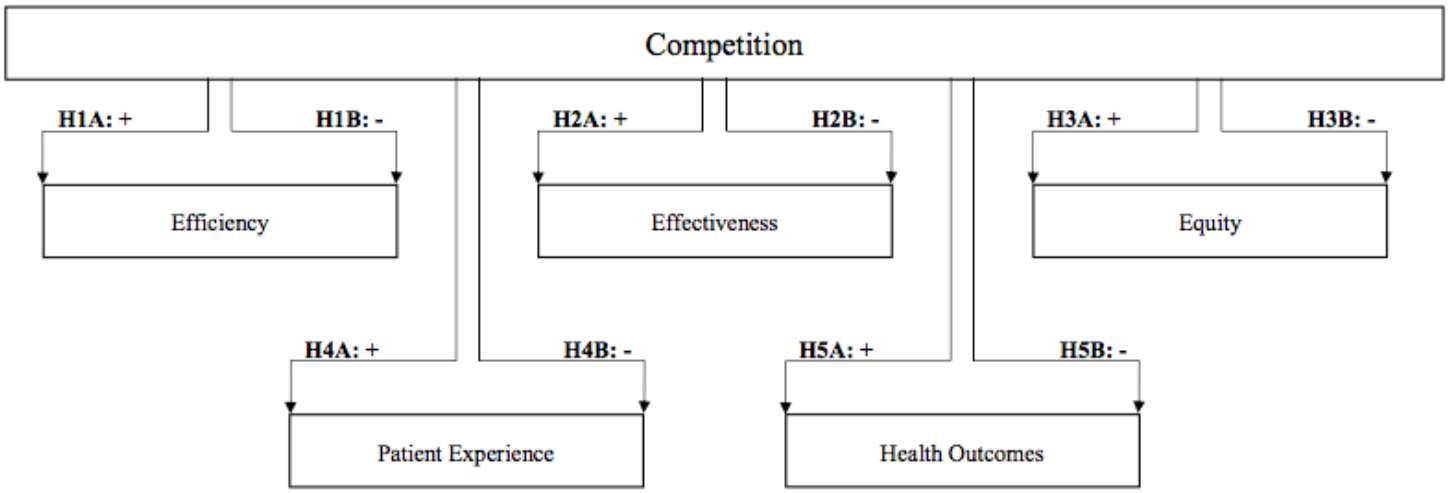
Having analysed previous studies of the impact of market-oriented reforms on the performance of public services, different outcomes appear. As expected by New Public Management, some studies found a positive relationship between the introduction of competition and the performance of public services. On the other hand, as predicted by New Public Governance, some studies found a negative relationship between the introduction of competition and public service performance. Whilst the two theories provide two diverging potential outcomes, taken together, their expectations fail to be comprehensive. As seen in some of the studies, there could also be no significant relationship between the introduction of market-oriented reforms and the performance of public services. As such, the possibility of no clear relationship between competition and performance must also be considered.

3.4 Conceptual Model

As seen above, in Chapter 3, there are various understandings of the relationship between competition and performance. Different theories, NPM and NPG, provide diverging perspectives on the potential effect of competition on performance in public services. NPM will assume and expect a positive effect of competition on performance. On the other hand, NPG will assume a negative effect of competition on performance. With these theories, the

thesis can associate its different hypotheses. These hypotheses on the effect can be seen in the conceptual model, as shown in **Figure 7**. These hypotheses are linked to the different dimensions of performance. Each theory is tied to a specific effect whether positive, negative or absent, and thus tied to all dimensions of performance. Nonetheless, the thesis must consider the possibility of different effects for different dimensions of performance. Certain dimensions of performance may have varying effects and thus, have varying theoretical explanations. This is essential to consider, to understand the complexity of the case.

Figure 7. Conceptual Mode



4. Research Design

Having established the theoretical background, this chapter will now establish the research design. It will first define the case study design, the overall context and the important elements of the case. Then, it will define its use of a mixed methods design. The thesis has chosen to utilise a mixed methods design, due to its ability to utilise the strengths of both quantitative and qualitative designs, as previously explained in Chapter 1. The mixed methods design will allow the thesis to use the quantitative phase to analyse the quality of the effect, a strength of this phase. Furthermore, the qualitative phase will allow the thesis to counterbalance the weaknesses of the quantitative phase, with the strengths of quantitative phase, by allowing the research to understand the context of the case. Having defined the mixed methods design, the research will define each of the phases, the quantitative and the qualitative. In the quantitative phase, it will define the analysis methodology, as well as the data collection. The qualitative phase will follow the same pattern, with a definition of the analysis methodology and the data collection.

4.1 A Case Study

The core element of definition of this research is its definition as a case study. Rather than analysing multiple cases, the research has strategically chosen to focus on one sole case, the case of the English NHS. In order to justify the choice of a case study, the thesis must explain the characteristics of a case study, its strengths and weaknesses. Only having done so will the thesis then move on to define the specific case of the English NHS. To provide more understanding of the case, the thesis will thus explain the general context, the history of healthcare policies, and their impact.

As explained by Gerring (2007), a case study can have varying definitions and understandings. The most common understanding of a case study is that it focuses on a small-N. It could also be defined as a case study as it aims to analyse comprehensively a phenomenon. Thus, it is clear that a case study focuses a small number of elements, often one, such as one specific event, a specific state or individual. As all designs do, a case study design has both strengths and weaknesses, which interact through trade-offs. As its strengths, a case study is capable of making generating hypotheses with a deep scope of proposition. Case studies can also have an important causal strength, by being able to determine the relationship between variables. However, the design is also at a disadvantage by its homogeneous population and its

concentrated data availability. It is hence clear that the case study design has both strengths and weaknesses, as do all research designs.

Having now understood the general framework of a case study, it is now essential to define the case of the English NHS. As briefly touched upon in Chapter 1, England has had a strong history of healthcare policies and reforms. These reforms have followed different trends according to the different political parties' programs. The Conservatives, on the right of the political spectrum, have been largely associated with competition oriented policies. The Labour party, on the left side of the political spectrum, has been associated with cooperation oriented policies. Thus, it was the Conservatives, with Margaret Thatcher, who implemented the competition-introducing reform, in 1989 (Propper, Wilson & Söderlund, 1998). The reform split providers, hospitals, and buyers of care, commissions, and restructured the English health care system. Providers of care, hospitals, are tasked with providing care to patients. Their services are bought through contracts, by buyers of care. Buyers of care, are commissions, organizations tasked with purchasing the services from hospitals. These commissions are given a territory whose population it must purchase care for. Whilst the terms used are 'purchasing', a more appropriate term for the task of commission is paying for care. This is as the choice for provider remains in the hands of the patients. Patients can choose which hospital to go to for treatment. However, commissions do emit ratings on the best hospitals to provide services, thus endorsing certain hospitals over others. The commission is there to purchase the service through contracts, in clearer terms, to pay for the service, and rate these hospitals. This entailed competition amongst hospitals, the providers of care, for patients.

The reform was the first in a series, which further restructured the system. While in power, the Labour Party did attempt to soften the competition policies. However, the competitive design of the system was further enhanced in 2012 by the coalition between Conservatives and Liberal Democrats, led by David Cameron. The level of fragmentation within buyers of care was increased, a method of increasing competition. The size of commissions also influences the level of competition. When the number of commissions is higher, providers must compete even more to enter in contracts with as many commissions as possible, through their patients. Therefore, by dividing the commissions into smaller units and thus multiplying the number of commissions, the 2012 HSCA increased competition amongst providers of care. Fragmentation is thus a method to increase competition between providers of care. In 2012, the Health and Social Care Act nullified the previously existing law on competition within the NHS. This entailed that competition within the NHS would now fall under the general competition law,

the Competition Act of 1998. Any previously existing restrictions of competition specific to the NHS would be nullified, and replaced with those of the Competition Act of 1998. The change of law was accompanied by a change in the regulatory body. Now, all regulations fall to the Monitor and the Office of Fair Trading. The HSCA 2012 also abolished two of the previously existing institutions, the Strategic Health Authorities and the Primary Care Trusts. The two labels differentiated two types of providers, hospitals and trusts, which meant providers would only compete with hospitals with a similar label. By abolishing the distinction between hospitals and trusts made by these two institutions, the regulation further placed all providers on the same level, facing the same competition and same regulations (HSCA 2012).

Thus, it is clear that England has a long history of competition oriented reforms in healthcare. As Chapter 3 has shown, some of the past reforms have been analysed by scholars. However, with the latest reform, HSCA 2012, the NHS has been brought into the general league of competition, allowing for more changes. It is therefore essential to analyse the specific case of the NHS in relation to the 2012 Act.

4.2 A Mixed Methods Approach

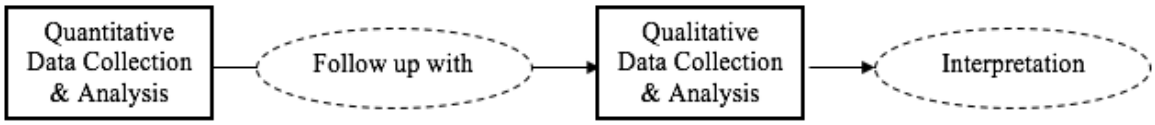
In order to proceed in its analysis, the thesis must elaborate a research design to fit within the case study. As previously touched upon in Chapter 1, the thesis has chosen to take on a mixed methods design. As defined by Creswell & Plano Clark (2011:2), "*Mixed methods designs as those that include at least one quantitative method (designed to collect numbers) and one qualitative method (designed to collect words*)". Thus, the thesis will combine the use of a quantitative method as well as the use of a qualitative method. The thesis has chosen to do so to be complete in its approach towards the specific case, and exhaustive in its methods. As explained previously, a case study may often be defined as holistic and exhaustive in its approach, thus a mixed methods research would be most appropriate. This chapter will thus continue, to establish the mixed methods design, with its quantitative phase and the qualitative phase. However, first, in the next section, the thesis must first define its mixed methods design.

As explained by Creswell & Plano Clark (2011), there are various potential mixed methods designs. These various designs have different ways to relate the two types of methods with one another. There are six potential designs, each with a different way to relate the two methods together. Firstly, there is the convergent parallel design. In this design, the two methods and their results are compared to one another. This will allow the final interpretation. In the second method, the explanatory sequential design, the quantitative method is followed up with the

qualitative method. Only then does the research interpret the data. The third design, also the explanatory sequential design, changes the order by following up the qualitative method with the quantitative method. The fourth design, the embedded design, combines both methods before, during or after one another, with a simultaneous interpretation. The transformative design, the fifth design, starts off with the quantitative method followed by the qualitative method, for a final interpretation. Finally, the multiphase design, utilises the first study, the qualitative study, to inform the quantitative study. This will then inform a mixed methods study.

Having understood the potential designs, the thesis has chosen to take on the second design, the explanatory sequential model. As seen in **Figure 8**, the model first collects and analyses quantitative data. Having done so, the research follows up with the collection and analysis of qualitative data. Once the research has collected and analysed both quantitative and qualitative data, it then interprets the said data. In the chosen design, the quantitative data is collected and analysed first. Then, the qualitative data is collected, to complement and explain the quantitative results. The explanatory sequential design lends itself particularly well to the specific aspect of the case study of the thesis as it allows the researcher to base its qualitative approach on the results found in the quantitative approach. As the thesis utilises indicators developed and catalogued by international organizations and non-profit organizations, the thesis will utilise qualitative data to further inform and understand the quantitative results.

Figure 8. Explanatory Sequential Design
(Creswell & Plano Clark, 2011: 69)



4.3 Quantitative Design

Whilst the mixed methods design provides a clear vision of the process of analysis of both methods to best fit the case study, the thesis must still define an individual design for the quantitative and qualitative approaches. Thus, this section of the Chapter will define the quantitative research design. Having done so, the thesis will then define the data selection and collection method.

A. Quantitative Research Design

As the mixed methods has now been settled, the thesis must now proceed to define the quantitative research design. To choose the design, the thesis took into consideration several defining elements. First and foremost, the research focuses on the specific case of England and its 2012 Bill, the HSCA. As such, the research had to consider the evolution of performance over a period of time preceding the competition-oriented policy and the period following the policy. The design had to allow the analysis of data over time. Second, the design had to allow the analysis of data which considered England as one unit of analysis. This restriction was due to the available data, which provided information on England as a whole rather than on individual regions or hospitals. As such, the design had to be appropriate for small-N research. With these two elements considered, the thesis found that the most appropriate design was a visual inspection descriptive statistical analysis. Descriptive statistics consists of the information which describes the data, the average value or the distribution of the data (Shi & McLarty, 2009). A potential use of descriptive statistics is the analysis of data over time, to identify a time-trend. However, descriptive statistics can take multiple forms. As informed by Busk & Marascuilo (1992), the thesis has chosen to utilise the method of visual inspection. According to the scholars, visual inspection has long been regarded as the best method to analyse data for single-case research. This is echoed by Tufte (2003) who explained that graphics can sometimes reveal more than statistical computations. The scholar explains that graphics are at their most useful when analysing large quantities of data. Thus, Tufte (2003) defines the time-series analysis is the most prone to visual inspection. Time-series analyses examine the trends in data observed over a period of time, at equal set intervals (Foster, Barkus & Yavorsky, 2011). Time-series are set to analyse changes or evolutions over time and the shape of the changes. As such, time-series benefit most from a visual analysis, as a simple table analysis would not allow the researcher to identify a trend or a pattern in the data. Therefore, the thesis will utilise a visual inspection to analyse and identify the pattern or trend, present in data collected over a set period of time, at repeated intervals.

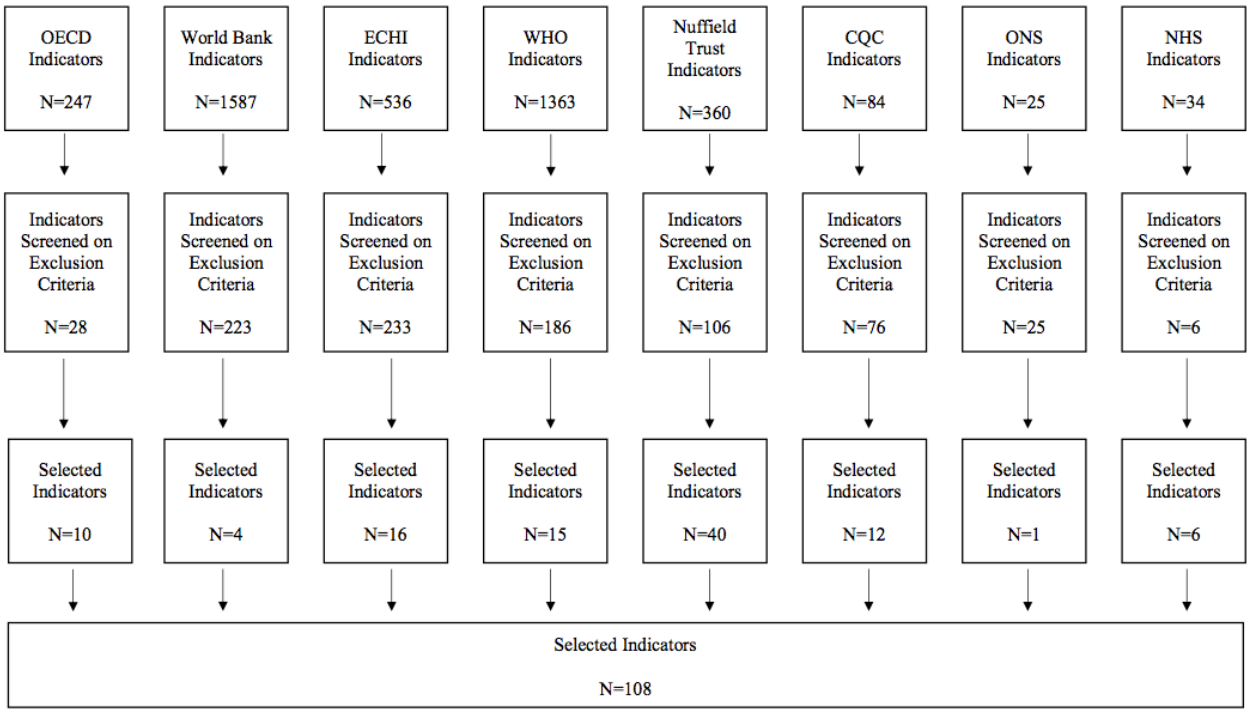
With visual inspection analysis in mind, the thesis can now precise its design. As is expected of the longitudinal analysis, the research will analyse the evolution of performance over time. In order to set its research period, the research must first define the Bill as its intervention. Thus, 2012 is defined as the year of intervention. Based on that year, the research will establish two distinct periods, the pre-HSCA period and the after-HSCA period. The period following the Bill will extend from 2012 to 2018, but will vary depending on the

indicators utilised and the available data. For the period preceding the Bill, the thesis has set 1980 as the lowest extreme year. This entails that the period preceding the Bill is defined as 1980 to 2011. As previously explained, the period of analysis will vary depending on the indicator and the available data. Moreover, the thesis will analyse the five dimensions of performance defined in Chapter 3. For each of the dimensions, the thesis will select performance indicators catalogued by international organizations, such as the OECD. It is based on this data, generally collected yearly, that the thesis will analyse the evolution of performance.

B. Data Selection

Having specified the quantitative model, the thesis must now define the data utilised for its analysis. As explained previously, the research will focus on performance data catalogued by IOs, think-tanks and national institutions. To collect appropriate and relevant data, the thesis reviewed existing indicators in different databases. As can be seen in **Figure 9**, the thesis reviewed indicators in the databases of the WHO, the World Bank, the OECD, the Nuffield Trust, the Office for National Statistics (ONS), the CQC, the NHS and ECHI. The thesis chose to select certain indicators based on exclusion criteria. The thesis would not consider any indicators which did not relate to healthcare performance. This would exclude any indicators which focused on health as a general matter, such as the rate of obesity. This would allow to select only indicators relevant to the specific field of performance. Furthermore, the thesis would not consider any indicators which did not contain any data in the years preceding 2006. 2006 was the limit year chosen, which could ensure a sufficient set of years on which to analyse the performance of healthcare prior to the HSCA in 2012. Based on these two exclusion criteria, the thesis reviewed a first set of relevant indicators. After further review, the thesis selected one hundred and eight indicators as appropriate and relevant to the analysis. The title of the indicators and their sources can be found in **Appendix 1**. Having selected potential indicators, the thesis then categorized the indicators into the different dimensions of performance. Each indicator was associated to one of the five dimensions: efficiency, effectiveness, equity, accessibility, safety, patient experience and outcomes. The dimension to which each indicator is associated can be found in **Appendix 1**. It is within these dimensions that indicators will be analysed across time.

Figure 9. Quantitative Data Selection Flow Chart



However, given the restrictions of time and space, the thesis had to limit its number of chosen indicators. In order to do so, the thesis selected one indicator per dimension, a total of five indicators, which can be found in **Table 7.** The choice of these five indicators was informed by key literature and followed up with experts. Analysing the literature allowed the research to identify different types of indicators which were commonly linked to certain dimensions of healthcare performance, as can be seen in **Table 6.** Certain dimensions can be clearly tied to specific types of indicators. Indicators of efficiency often refer to the number of admissions, operations or other measures hospital activity. Bed occupancy or the number of beds was also a common mention (Khalifa & Khalid, 2015; Gu & Itoh, 2016). Thus, based on the indicators used by the literature, the research has chosen to focus on the Accident & Emergency (A&E) Quarterly Attendances, as provided by the NHS (NHS Archives). To measure effectiveness, the literature focused on the time dimension, with regards to waiting times and length of stay. Hence, following the pattern set by the literature, the research will analyse the A&E Quarterly Waiting Times, as provided by Quality Watch. The third dimension of performance is a dimension less focused by the literature. However, Davis et al (2013) established that equity was best measured when comparing socio-economic equity or ethnic equity. Thus, amongst the pre-selected indicators, the research has chosen to analyse the

proportion of persons with self-declared unmet needs for health care services due to either financial barriers, waiting times or travelling distances, as provided by ECHI.

Table 6. Commonly Used Indicators of Performance per Dimension

	Davis et al (2013)	Khalifa & Khalid (2015)	Gu & Itoh (2016)
Efficiency	Relative Stay Index – Number of Patients Stays Standardized Day Surgery Rate – Number of Surgeries Performed in a Day	Number of Admissions & Discharges Total Number of Patients Seen by Hospitals in a Day, Month and Year Number of Hospital Beds	Number of Operations Inpatient Admissions Bed Occupancy
Effectiveness	Unplanned Readmissions 30-Day Mortality	Average Length of Stay Average Waiting Times Total Inpatient Days	Hospital Stay Waiting Time in Emergency Room
Equity	Socio-Economic Equity Ethnic Equity		
Patient Experience		Unplanned Readmissions within 30 Days	Incidents Patient Satisfaction
Health Outcomes		Mortality	Mortality Breast Cancer Survival Rate Infant Deaths

Moreover, as patient experience is often tied to overall quality of care rather than performance, the literature utilised different types of indicators. Nonetheless, based on the NHS Key Performance Indicators and the indicator of patient satisfaction used by Gu & Itoh (2016), the research chose to focus on the perception of treatment with respect and dignity. Finally, health outcomes were unanimously tied to mortality and survival, but with regards to different causes or populations. Khalifa & Khalid (2015) focused on general mortality, whereas Gu & Itoh (2016) specified the different types: infant mortality, breast cancer or cervical cancer. Thus, as the measures of infant deaths and cancer deaths are some of the most commonly catalogued indicators, the research will analyse the percentage of 1-year survival for children diagnosed with cancer as a measure of health outcome.

Table 7. Chosen Indicators of Performance

Dimension	Indicator
Efficiency	A&E Total Attendances per Year
Effectiveness	A&E Waiting Times
Equity	Percentage of People with Self-Declared Unmet Needs for Health Care
Patient Experience	Perception of Treatment with Respect & Dignity
Health Outcomes	Percentage of 1-Year Survival for Children Aged 0 to 4 Years Old Diagnosed with Cancer

4.4 Qualitative Design

As the research utilised a mixed methods design within the context of a case study, it also integrates qualitative data. The qualitative phase allows the research to counterbalance the weaknesses of a quantitative analysis, with the strengths of a qualitative analysis. Thus, this section of the Chapter will focus on establishing the design for qualitative information. It will also specific the method for data collection.

A. Qualitative Research Design

Given that the thesis will follow the explanatory sequential model for mixed methods, it must define an approach that follows the quantitative approach. Hence, the research will utilise an interview based approach to qualitative data. To complement the existing quantitative data, the research will select experts and individuals to interview on the matter of the performance of the NHS. More precisely, the study will utilise semi-structured interviews, to complement the quantitative results.

Semi-structured interviews are a method which utilise predetermined but open-ended questions (Ayres, 2012). This allows the researcher to structure and direct the topic of the interview, while still allowing some flexibility. Semi-structured interviews are particularly useful in studies where the concepts or relationships are already well understood. Hence, given the chosen explanatory sequential design, where the qualitative data will complement the quantitative data, semi-structured interviews would be most appropriate. Given that the interviews are structured, the design requires a certain process. The researcher must first create an interview guide. The guide will consist of a set of questions or a list of topics which will be

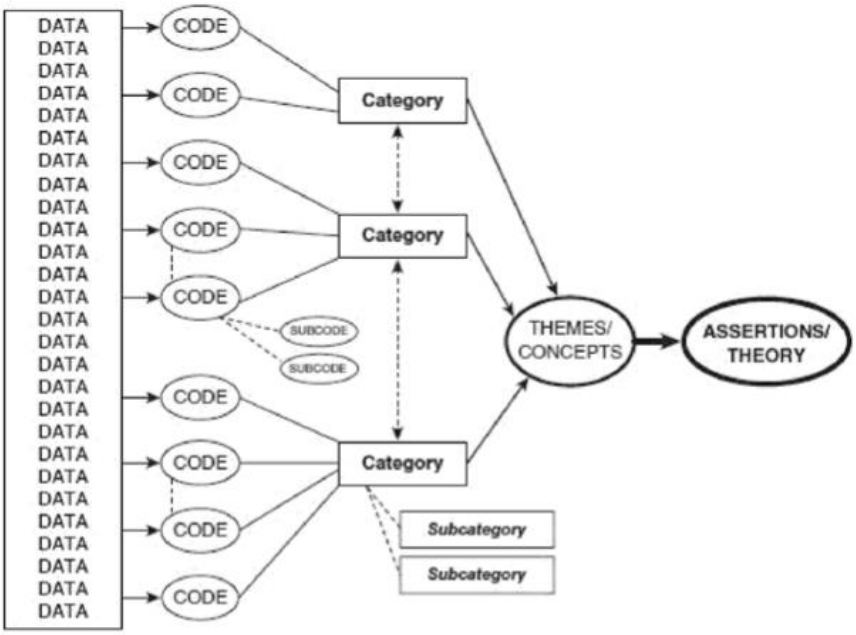
targeted during the interview. The research's interview guide can be found in **Appendix 2**. The researcher can choose to follow the guide's order of questions, or to switch between questions (Ayres, 2012). Questions must be careful worded, to allow the interviewee to be free in his/her answer. The researcher can also choose to complement the predetermined questions with other unplanned questions, to further develop the answer given. It is according to this design that the study will conduct its interviews, to utilise the results of the quantitative analysis to guide its interviews and questions.

As the thesis will conduct a series of interviews, it must also establish an analysis method. For its research, the thesis has chosen to utilise summative context analysis. In summative content analysis, the research identifies a set of words which help summarize the data. That procedure is also known as coding. Coding is just one of the ways to analyse qualitative data, but it is a very useful way to recognize patterns (Saldana, 2009). In qualitative research, a code is often defined as a word or a phrase which is set by the researcher to which is associated a symbol or a certain part of the data. This word may be evocative, summative and aims to capture the essence of the data (Saldana, 2009). As such, coding is often used to summarize the essence of an excerpt or passage of data. The codes are then divided into categories and subcategories. All the codes will allow the research to determine the overall pattern of the interviews, as the purpose of coding is to search for patterns in qualitative interviews. It allows the research to differentiate between interviews, to find similarities, differences or frequencies within the data.

Furthermore, these codes and categories will allow the research to evaluate concepts and theories. In the thesis, the interviews will provide more data, to evaluate the effect of competition on performance, and the value of NPM and NPG theories on the matter. The evaluation of the theory and the conclusions made from the data are thus the final step of the coding model, as can be seen in **Figure 10**. Nonetheless, whilst **Figure 10** shows the overall model, it is essential to understand that the general process of coding may take several coding cycles. One of the techniques for coding assumes that the researcher will establish a preliminary code followed by a final code, as the researcher lays out the qualitative data. Other techniques assume that the researcher will establish a set of codes before collecting qualitative data. This set would then be modified after the collection of data (Hseih & Shannon, 2005). This is the specific technique that the thesis will utilise. The set of codes established before the collection of data can be found in **Appendix 3**. The second set of codes, established after the collection of data, can be found in **Appendix 4**. Thus, whilst the overall pattern of the interview

and the codes associated to each interview individually may evolve as the researcher continues the qualitative interviews (Saldana, 2009).

Figure 10. Streamlined Codes to Theory Model
(Saldana, 2009)



B. Data Collection

Thus, having settled on the design for the qualitative approach, the research must now define its method for data collection. Given the qualitative design, the research would thus have to select interviewees. Interviewees should be knowledgeable on the subject, and understand the specific context of the case. With these criteria in mind, the thesis chose to initially focus on the staff of the Nuffield Trust. The Nuffield Trust is "*an independent health think tank*" (Nuffield Trust, 2018 B). As such, they analyse and research the NHS, its quality and its policy reforms. As a think tank, the Nuffield Trust is composed of experts on the NHS, fellows, research analysts and associates. Therefore, the Trust and its staff appear to be the best pool of potential interviewees. They are knowledgeable on the case of the NHS and on the quality of service. As such, the research chose to focus on the Nuffield Trust researchers and fellows as a first pool of experts and interviewees. Moreover, as the purpose of the interviews was to understand the trends seen in the quantitative data and their validity, the research thought it was essential to understand the thoughts of those on the ground, health professionals. As such, the second pool of candidates were health professionals, across all levels, macro, meso and micro. By listening to the understanding of the impact of directors, managers or nurses, the research could provide a more practical and diverse understanding of the observed trends.

Figure 11. Qualitative Data Collection Flow Chart

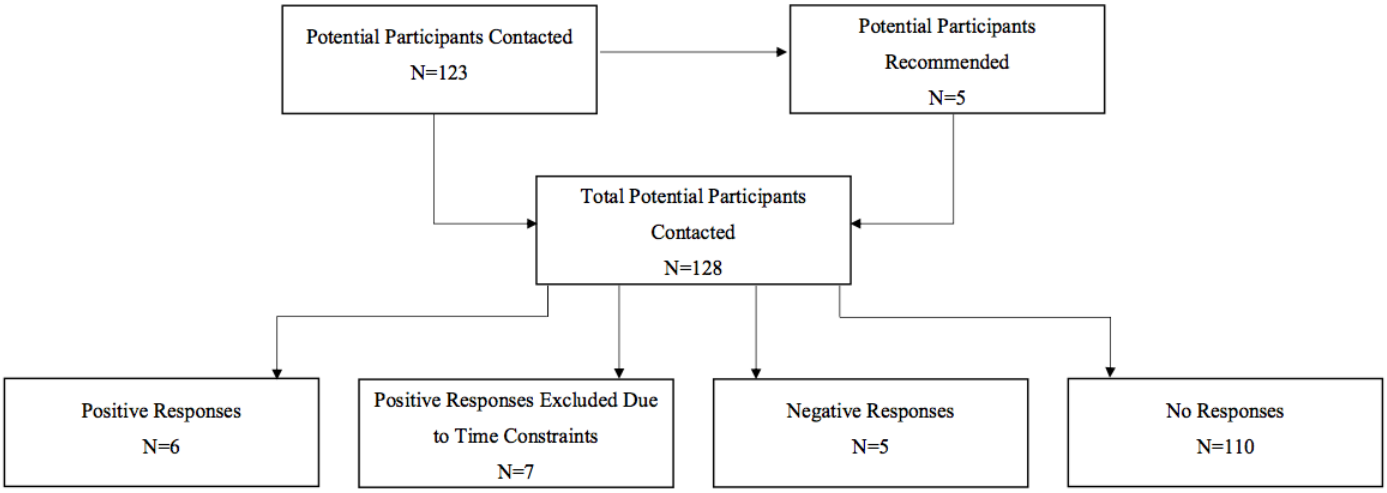


Table 8. Interviewees and Justification

	Who?	Role?	Why?
1	Sarah Scobie	Deputy Director of Research at the Nuffield Trust	Scobie is the current Director of Research on the NHS. With years of experience in the NHS, she oversees the research and the indicators being published by the Nuffield Trust and Quality.
2	Professor Rudolf Klein	NHS Commentator	Klein has been a top commentator on the NHS and Health Policies, with decades of knowledge and experience.
3	Professor Nick Black	Senior Associate at the Nuffield Trust	Black has focused his research on the evaluation of health services, after a few years working within the NHS. He has published several reports within the Nuffield Trust

			about the general quality of the NHS.
4	Anonymous 1	Associate Director Specialised Commissioning of NHS England	Has worked within the NHS since 2009. As the associate director of specialised commissioning, he is directly tied to the internal market at the macro level.
5	Anonymous 2	Healthcare Support Worker in Partnership NHS Trust	Works as a support worker at the Leicester Trust, in the mental health ward. She works at the micro level of health care.
6	Anonymous 3	Divisional Director of Surgery in NHS Foundation Trust	Worked in the NHS for 38 years. For most of those, she worked as Divisional Director of Surgery, thus working at the meso level of health care.

4.5 Evaluating Research Quality

Finally, the thesis must establish the quality of the research, by considering criteria set out for evaluating research. However, as the thesis utilises a mixed methods design as embedded within a case study design, it must establish the validity of both types of research, both qualitative and quantitative. Hence, the thesis must evaluate the quality based on the criteria set out for both types. These criteria can be found in **Table 9**.

Table 9. Quality Criteria in Quantitative and Qualitative Methods

Criteria in Quantitative Research		**Criteria in Qualitative Research**	
Internal Validity	"*The degree to which alternative explanations for the obtained results can be ruled out*", the validity of the inferences made about the causal relationship between the	**Credibility**	"*Whether or not the reconstructions of the inquirer are credible to the constructors of the original multiple realities*" (Teddlie & Tashakkori, 2009: 296)

	independent and the dependent variables (Teddlie & Tashakkori, 2009: 298)		
External Validity	The validity about whether a causal relationship holds over variation in treatment, outcome measures, units and settings (Garcia & Wantchekon, 2010)	**Transferability**	"*Transferring of inferences from a specific sending context to a specific receiving context*" (Teddlie & Tashakkori, 2009: 296)
Reliability	The consistency of the measure (Heale & Twycross, 2015)	**Dependability**	"*The extent to which the process of the inquiry is dependable*", the ability to make consistent results (Teddlie & Tashakkori, 2009: 296)
Objectivity	Researcher remains distanced from the subject of the study, so the findings depend on the results of the study, rather than personality, belief and values of the researcher (Payne & Payne, 2011)	**Confirmability**	"*The extent to which the product of the inquiry in confirmable*", whether results are grounded in data (Teddlie & Tashakkori, 2009: 296)

Hence, as explained, the research must establish quality for both quantitative and qualitative methods. Nonetheless, when comparing the criteria set out in Table 7, it is clear that there are strong similarities in the criteria. Thus, the research will establish the strength of the criteria in parallel. In quantitative methods, quality is defined by validity, both internal and external, reliability and objectivity. In qualitative methods, quality is based on credibility, transferability, dependability and confirmability. As seen in **Table 9**, internal validity refers to the validity of the relationship inferred between the two variables. The research must have considered all possible alternatives explanations and relations between the variables. This notion is very similar to the concept of credibility in qualitative methods. When considering the thesis, it is clear that the internal validity is established from the outset as strong. As the thesis is set out as cross-theoretical, by considering both the potential relationship between

competition and performance as described by NPM and NPG, the research considers all potential results. Whilst the research parameters do not allow to isolate one specific variable as would be expected in most quantitative methods, the thesis considers the potential role of other unanalysed variables through its qualitative interviews. Thus, the weaknesses of the quantitative internal validity are addressed within the qualitative design. Secondly, the research must consider its external validity. External validity is comparable to transferability. Whilst the thesis does focus on the case of England, the wide use of NPM reforms allows the results of the research to be applicable across the Globe. As for its external validity, the use of multiple indicators, with different measurements, over a same period of time, allows the research to find consistent results in the analysis of its statistical points, through time-trend. Although the quantitative external validity is not the strongest, the transferability through the qualitative analysis allows for a balance.

Having settled the validity of the research, the thesis must now establish its reliability and objectivity, as well as dependability and confirmability. With regards to reliability, the thesis has continuously utilised data recorded at set intervals over a certain period of time. In focusing solely on the use of such indicators, the research can use consistent measures, which strengthen its reliability. Moreover, the research can establish objectivity and confirmability in parallel, as it is able to be objective by defining the results of the descriptive analysis, based on statistical points. This allows the research to have a strong objectivity. Similarly, the results of the research are confirmable as they are grounded in statistical data and visual representations. They are also grounded in the codes defined by the research. Hence, the research benefits from a strong objectivity and confirmability. Finally, the research sets its dependability. Whilst the results of the qualitative and quantitative analyses do vary, the overall results allow the research to confirm its dependability.

5. Results

Given the mixed methods nature of the case study design, this chapter will focus on analysing both elements of the mixed methods. The research will first analyse its quantitative data through a descriptive time trend analysis. It will analyse the five indicators of performance, to identify time trends or patterns. Based on these results, the thesis will then conduct its qualitative analysis. It will analyse the content of the interviews conducted, to interpret the trends seen in the quantitative data. This analysis will come to complete and triangulate the quantitative data.

5.1 Quantitative Results of the Descriptive Statistics

As explained in previous chapters, performance can be taken into consideration with different dimensions. The thesis had established the different dimensions found in literature as seen in **Table 2**. Based on these dimensions, the thesis selected five dimensions, which it would analyse. The chosen dimensions were: efficiency, effectiveness, equity, patient experience and health outcomes. With each dimension, the thesis established its hypotheses, which followed two trends: a positive effect of competition on performance as would be expected in NPM, and a negative effect of competition on performance as would be expected by NPG. The research chose to focus on one indicator per dimension, given the limited time and space. The choice of these indicators was previously explained in Chapter 4, based on the literature found in **Table 6.** Thus, taking into consideration the previously established hypotheses, the thesis will now analyse the performance indicators in a descriptive manner, to attempt to recognize a pattern or a trend.

A. Performance Through Efficiency

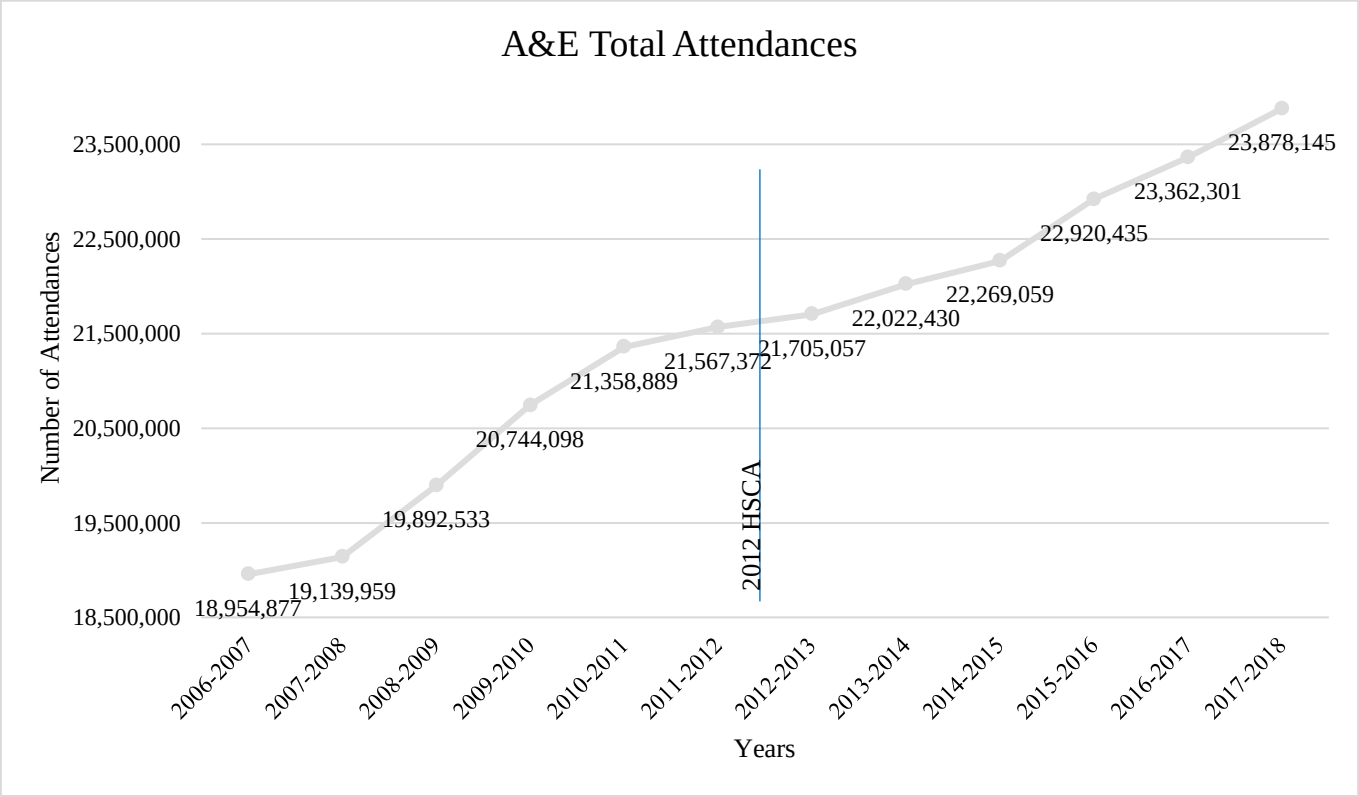
Hence, the thesis must start by analysing the essential dimension of performance. One of the most considered and analysed dimensions is efficiency. As seen in Chapter 4, efficiency can be measured using a variety of different indicators. However, based on the trend set by Khalifa & Khalid (2015), the thesis has chosen to analyse an indicator of emergency room admissions. Emergency room admissions are a good indicator of a healthcare system's capacity and ability to respond to needs, as explained by Khalifa & Khalid (2015). As such, the thesis will analyse the A&E Attendances. To allow for ease of visual reading, the thesis provides below the yearly attendances. However, for more precision, quarterly attendances can be found in **Appendix 6**.

Thus, looking at **Figure 12**, A&E attendances have been continuously increasing. Over the whole period, ranging from 2006 to 2018, attendances from the beginning have been

multiplied by 0.79, to reach a total of 23,878,145 attendances. Whilst there may have been a clear continuous growth, the patterns seem slightly different in the periods before and after 2012. In the period before the Bill in 2012, the increase appears slightly steeper. In fact, during the period, the number of attendances increased by 2,612,495, and multiplied by 1.14. However, in the period after the Bill, the number of attendances only increased by 2,173,088 and only multiplied by 1.10. Taking these numbers into consideration, it is clear that the increase of attendances has been more significant in the period before the Bill, rather than the period after the Bill.

Figure 12. A&E Total Attendances per Year

(The National Archives, 2013; NHS England, 2018)



Consequently, based on the different increase rates, the thesis must consider the previously expressed hypotheses. When comparing the two different periods, the research finds a lesser increase rate in the period after the HSCA, which would suggest a negative effect of competition on performance. This would encourage to confirm hypothesis 1B, which states '**H1B:** Competition will negatively influence efficiency indicators of health care performance'. Nonetheless, the thesis must bring nuance to this. Whilst there is a slightly slower growth rate in the period after the Bill, there is still an increase of attendances in that period. Therefore, the

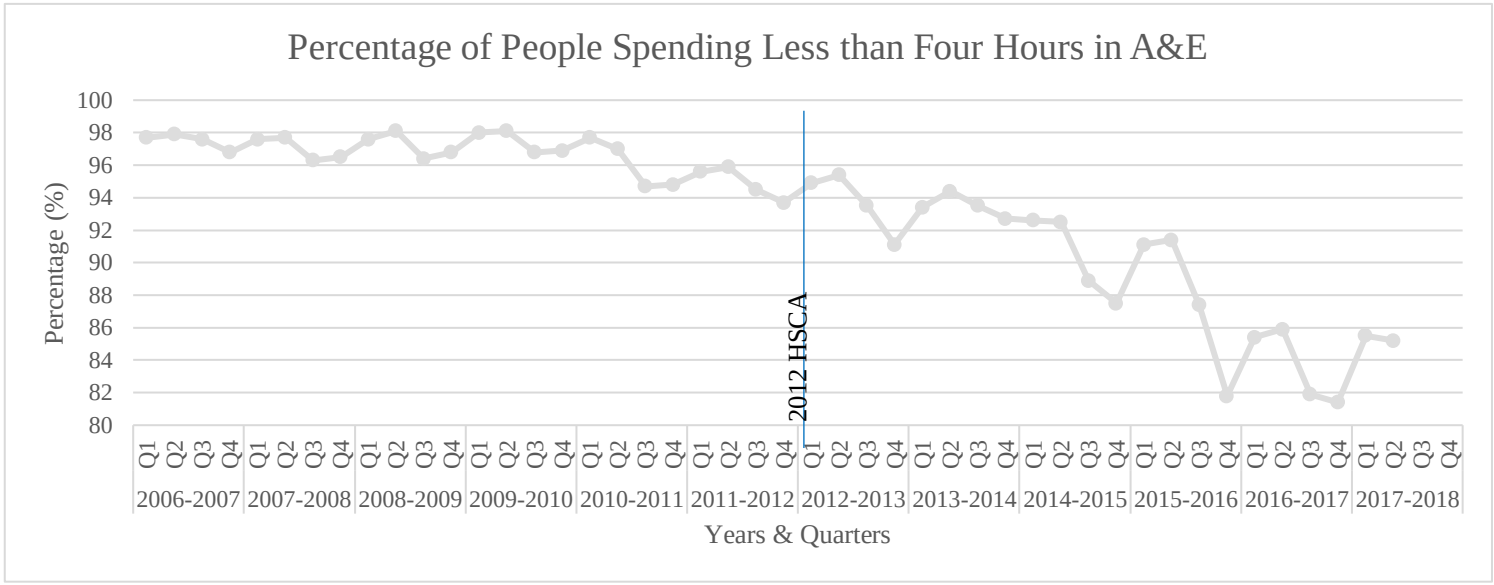
thesis could only be inclined to confirm that hypothesis on the grounds of a comparison of increase rates between both periods. Based on this comparison of both periods, it would be inclined to reject hypothesis 1A, '**H1A:** Competition will positively influence efficiency indicators of health care performance'.

However, if the thesis must only consider the pattern of each period individually, then it could infer a positive effect of competition on performance, as there has been an increase in attendances in the period after the Bill. Thus, solely basing its assumptions on the individual patterns of the period, the thesis would be inclined to confirm a positive effect of competition on performance with regards to efficiency, and thus hypothesis 1A, which reads '**H1A:** Competition will positively influence efficiency indicators of health care performance'. Accordingly, the thesis would be inclined to reject hypothesis 1B, which expects a negative effect of competition on performance regarding efficiency. The hypothesis states '**H1B:** Competition will negatively influence efficiency indicators of health care performance'. Therefore, as can be seen, the research can make two opposite conclusions, based on two different analyses and interpretations. On the one hand, the research could accept a positive effect, rejecting a negative effect. On the other hand, the research could accept a negative effect and reject a positive effect.

B. Performance Through Effectiveness

Having analysed efficiency, the research must now analyse the other main dimension of performance, effectiveness. Effectiveness is another important dimension of performance, often utilised by scholars and measured in various ways. However, Gu & Itoh (2016) focused on waiting times indicators, as a measure of effectiveness in healthcare. Based on their use of such indicators, the thesis has therefore chosen to analyse a similar indicator, the A&E waiting times. More specifically, the research will analyse the percentage of people spending less than four hours in A&E. Four hours is the general target set by the NHS, in which persons should be treated (Quality Watch, 2018 A). Thus, the ability to reach such a target is a good measure of effectiveness. The percentage of people of spending less than four hours in A&E, divided in quarter years, can be found in **Figure 13**. However, for more precision, a clearer read of the data can be found in **Appendix 7**.

Figure 13. Percentage of People Spending Less Than Four Hours in A&E (Quality Watch, 2018 A)



Therefore, when looking at **Figure 13**, the research can identify a general pattern. Throughout the entire period, there has been a continuous yo-yo like pattern. There are series of small increases followed by decreases, throughout the entire analysed period. In many cases, these variations are linked with the year quarters. Therefore, this general trend clearly shows a variation according to the time of the year. Nonetheless, this does not bring about more information on the difference between the pre-HSCA period and the post-HSCA period. Thus, considering the two periods individually, each seem to have a specific trend. In the period before the HSCA, the trend resembles a plateau. The majority of the data points range between 93% and 98%. However, the plateau finishes in 2010-2011, as there is a slight decrease in those quarters. In the second period, the period after the HSCA, after 2012, the pattern is completely different and shows a clear decrease. In this period, the majority of the data points range between 81% and 94%, a major difference from the previous period. The decrease can be clearly recognised, as in the 2012-2013 Q2, the percentage point was at 95.4%, whereas in the 2016-2017 Q4 the percentage point was at 81.4%. Nonetheless, in 2017-2018, the percentage suddenly increases, reaching a similar percentage to that of the initial percentage of the period, 94.98%. Whilst this shows a change at the end of the period, the final data point is still well below those found in the period preceding the HSCA.

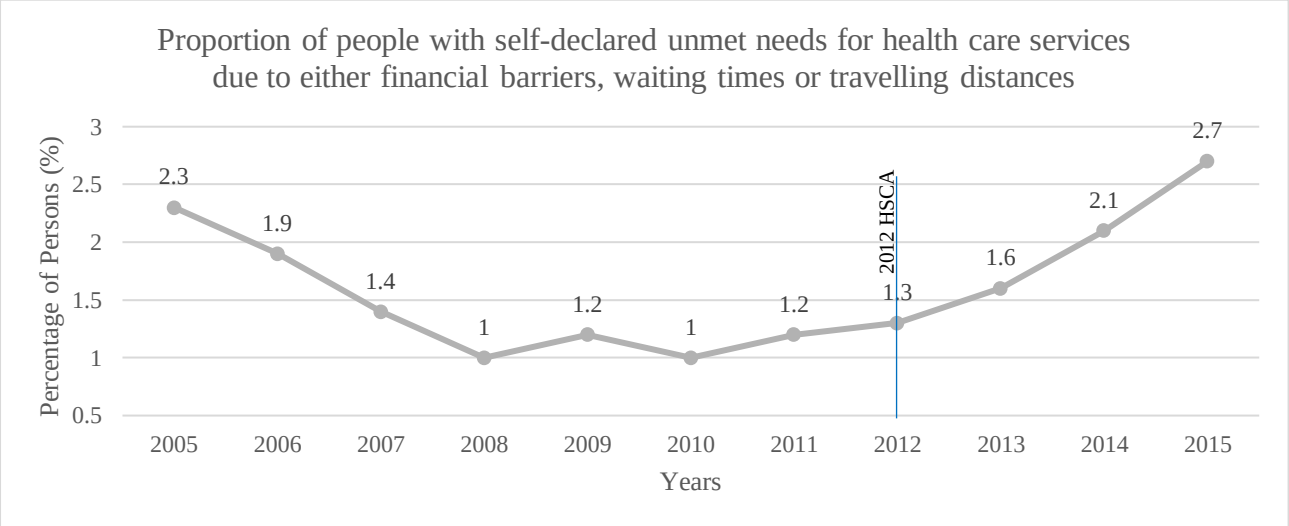
Hence, it is clear that the two periods have dramatically opposed patterns, one a plateau and the other a decrease. Whilst in some cases, the general pattern and the individual patterns

may bring about different conclusions, the overall outcome is unanimous with regards to effectiveness. Based on the analysis, the research could now assume that there is a negative effect of competition on performance with regards to effectiveness. As such, the thesis would be inclined to accept hypothesis 2B, which reads '**H2B:** Competition will negatively influence effectiveness indicators of health care performance'. By accepting this hypothesis, the thesis thus would be inclined to reject the hypothesis under which competition has a positive effect on effectiveness. That hypothesis states '**H2A:** Competition will positively influence effectiveness indicators of health care performance'.

C. Performance Through Equity

Having analysed the two main dimensions of performance, the research must now analyse the third dimension, equity. As explained in Chapter 3, equity refers to the fair allocation of services across, without any differentiation based on individual characteristics. Accessibility, which considers the access all individuals have to services regardless of individual characteristics, is often integrated as part of the equity dimension. Based on both understandings, the thesis has thus chosen to utilise an indicator which quantifies the percentage of people with unmet needs for healthcare services due to financial barriers, waiting times or travelling distances. ECHI catalogued the proportion of people with self-declared unmet needs for health care services, across the European Union Member States, from 2005 onwards. The results, for England, can be found in **Figure 14**. To understand the indicator, the research must understand that a high percentage would be a sign of low equity.

Figure 14. Percentage of People with Self-Declared Unmet Need for Health Care (ECHI, 2018)



Whilst the thesis should consider the percentages from 2008 onwards, given the pattern seen from 2005 up until 2011, the thesis must consider this period too as it nuances the results. Thus, when looking at the overall evolution, a time-trend is quite evident. The percentage of people with unmet needs has followed the general pattern of a u-curve. It has seen a decrease from 2005 until 2008. Following the u-curve pattern, the percentage increased again from 2010 onwards. However, the research must also analyse the pattern when taking 2012 as the year of differentiation between the period preceding the Bill and the period following it, and 2008 as the start of the first period. From 2012 onwards, the percentage points of people with unmet needs has increased from 1.3% to 2.7%. In 2015, the percentage point was of 2.7%, an increase of 1.4% from 2012, and approximately 2.07 times the 2012 percentage. However, when comparing this percentage to the initial percentage point in 2005 of 2.3%, the general trend is less clear. Although this percentage decrease throughout the first period, it does provide a similar data point to that of 2015. To find more clarity, the research must analyse the average percentage of both periods. From 2005 until 2011, the average percentage of people with unmet needs was of 1,428%. Whereas, from 2012 onwards, the average percentage was 1.925%. When taking into consideration the averages, it is clear the percentage average was higher in the period after the Bill than before the Bill.

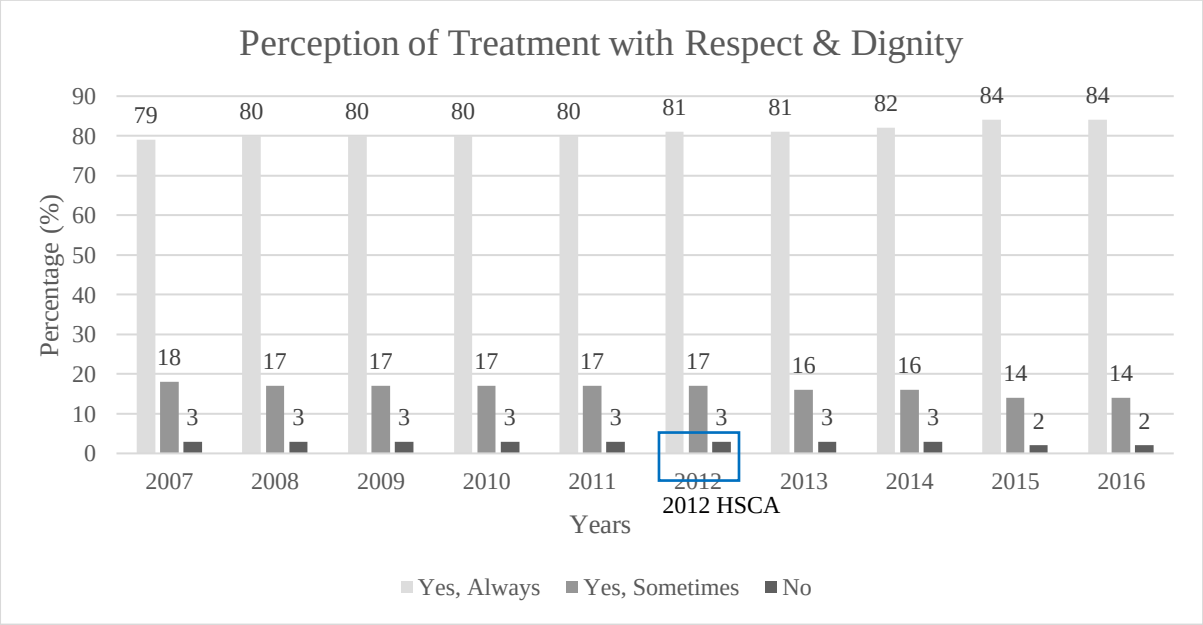
Therefore, the research must understand the hypotheses in two different manners. When considering the general pattern from 2005 onwards, without any regard for the two periods, the u-curve pattern would not allow for the confirmation of either hypotheses. The pattern shows high percentages throughout the entire figure. However, when considering the two periods separately, with the first period starting in 2008, the pattern shows a decrease of percentage in the period before the 2012, and an increase in the period after 2012. Based on these patterns, the research would be inclined to confirm hypothesis H3B. That hypothesis reads '**H3B:** Competition will negatively influence equity indicators of health care performance'. Accordingly, the thesis would be inclined to reject hypothesis H3A, which reads '**H3A:** Competition will positively influence equity indicators of health care performance'. Furthermore, when analysing the averages of both periods, the research shows a higher average for the period after the Bill, of 1,925%, than the average of the period before the Bill, of 1,428%. These results would further reinforce those found in the individual patterns.

D. Performance through Patient Experience

The fourth dimension which the thesis will analyse is patient experience. As it is not a classic dimension of performance, it is often forgotten by studies. However, it remains an essential

part of performance, especially given the essence of public services. As such, the thesis has chosen to focus on the perception of patients of the treatment they receive with regards to respect and dignity. To do so, the research focuses on the data collected by the Care Quality Commission, through its 'Adult inpatient survey' (Care Quality Commission, 2016). From 2005 onwards, the Care Quality Commission (2016) has asked patients to fill in a survey, to evaluate experiences for inpatients. The latest survey results were published in from 2016. Each year, the number of participants and the response rate varies. However, in order to get an estimation of the response rate and the number of participants, the thesis will consider the results of the 2016 survey. In 2016, the survey received a response rate of forty-four percent, with 77,850 respondents (Care Quality Commission, 2016). Amongst the questions of the said survey, patients were asked the following question: 'Were you treated with dignity and respect?' (Quality Watch, 2018 B). In 2016, the specific question received a total of 74,889 responses. The survey question allowed for three types of answers, which patients could select. The three potential answers were the following: 'Yes, always', 'Yes, sometimes', and 'No'. The survey then categorized these answers and quantified the number of responses. Those results can be found in **Figure 15.**

Figure 15. Perception of Treatment with Respect & Dignity
(Quality Watch, 2018 B; Care Quality Commission, 2016)



Thus, as can be seen in **Figure 15**, there is a clear time-trend of the perception of treatment with respect and dignity. In the period before the Bill, the percentage of all three answers has remained quite stable. The percentage of patients answering 'Yes, Always' has remained at

roughly 80%, whereas the percentage for 'Yes, Sometimes' has been staying at roughly 17%. The same can be said for the percentage of answers for 'No', which remained at 3% throughout. However, when analysing the period after the Bill, there is a clear evolution. The percentage of answers for 'Yes, Always' has continually increased, to reach 84%. This is in conjunction with a continuous decrease of the number of answers for both 'Yes, Sometimes' and 'No', respectively reaching 14% and 2%.

From looking at both periods and analysing the general trend, it is very clear that there has been an increase in the number of patients finding they were always treated with respect and dignity. This was in correlation with a decrease in the number of patients finding they were sometimes or not treated with respect and dignity. Hence, the trend shows an improvement in the treatment of patients with dignity and respect. This evolution started in 2012, which would clearly show a positive effect of competition on performance, with regards to patient experience. Therefore, the research would be inclined to accept the thesis' hypothesis 4A, which reads '**H4A:** Competition will positively influence patient experience indicators of health care performance'. Consequently, the research would be inclined to reject hypothesis 4B, which reads '**H4B:** Competition will negatively influence patient experience indicators of health care performance'.

E. Performance Through Health Outcomes

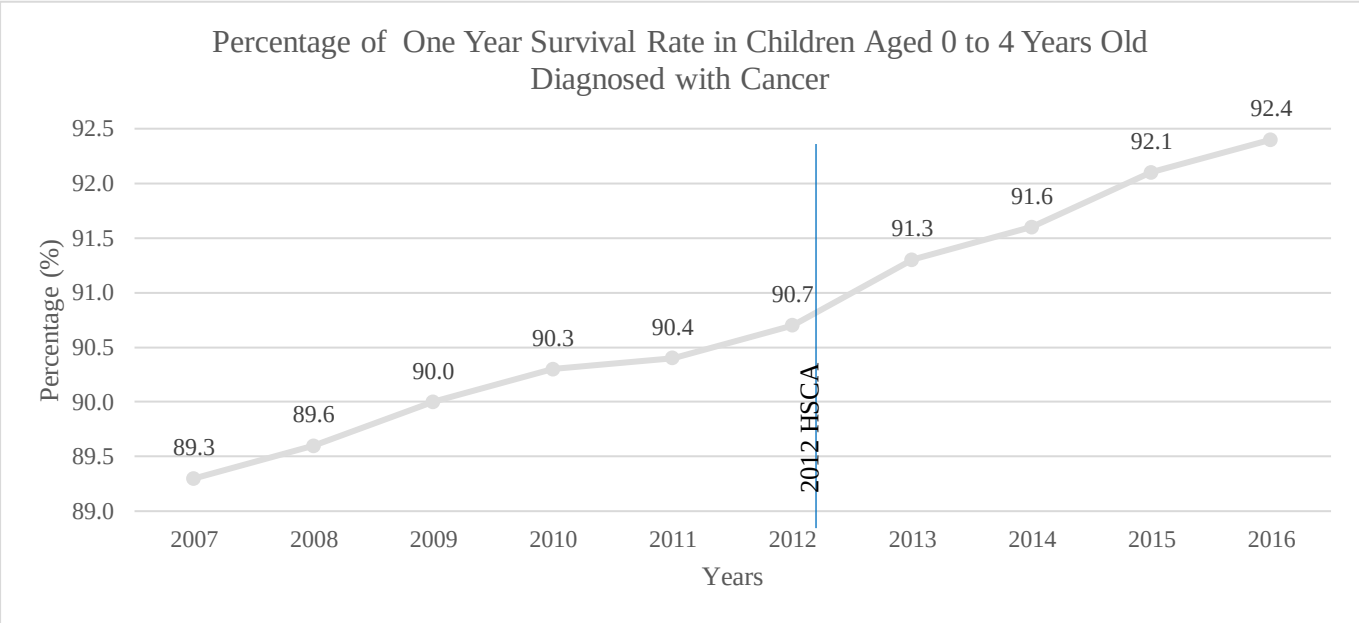
Thus, the final dimension of performance to analyse is health outcomes. Health outcomes are a significant indicator, given the context of health care. In order to analyse the dimension, the thesis has chosen to combine the indicators utilised by Khalifa & Khalid (2015) and Gu & Itoh (2016). As these scholars utilised indicators of mortality and cancer mortality, the thesis has chosen to analyse the percentage of 1-year survival for children aged 0 to 4 years old diagnosed with cancer, as seen in **Figure 16.**

Based on **Figure 16**, the research can now determine a clear trend over the entire period. There is a clear increase starting in 2007, up until 2016. In 2007, the survival rate was at 89.3%, whereas in 2016, the rate was at 92.4%. Whilst this increase did face slight slump between 2010 and 2011, the overall increase by 3.10% is significant. This increase thus applies to both the period before the HSCA and the period after the HSCA. However, the increase rates in both periods are not equal. In the period before the HSCA, the percentage of survival rate increased by 1.10%. Whereas, in the second period, the percentage increased by 1.70%. Taking these

numbers into consideration, the overall increases were quite different in the two period. The increase in the second period was significantly higher than in the first period.

Figure 16. Percentage of 1-Year Survival for Children Aged 0 to 4 Years Old Diagnosed with Cancer

(Office for National Statistics, 2017)



Thus, looking at the findings on **Figure 16**, the research can clearly identify a pattern. Based on the data, it can assume a positive effect of competition on performance ance, based on the increase seen in the second period. This would be based on an overall time-trend analysis, and the increase rates in both periods. Based on this interpretation, the thesis would be inclined to accept the hypothesis under which competition has a positive effect on performance, and health outcomes specifically. This would mean accepting hypothesis 5A, which reads '**H5A:** Competition will positively influence health outcome indicators of health care performance'. Under this interpretation, the thesis would be inclined to reject hypothesis 5B, which establishes a negative effect of competition on performance, and reads as follows '**H5B:** Competition will negatively influence health outcome indicators of health care performance'.

F. Performance in All Five Dimensions

Having analysed all five indicators, the thesis must now consider all the results of these analyses together. The summary of these analyses can be found in **Table 10**. For three of the five indicators, the thesis found that the introduction of competition could be linked with a

decrease in the performance of the NHS. This is the case for efficiency, effectiveness and equity, which all saw poorer results in the period after the Bill. However, for the two other remaining dimensions, the introduction of competition could be linked with an increase in performance. Both patient experience and health outcomes saw significant improvements after the introduction of the Bill. Thus, the results of the analyses are quite nuanced amongst dimensions. Considering all dimensions together and their results, the thesis would be inclined to define the effect of competition on performance as negative, based on the results of three out of five dimensions. However, to further understand the effect

, the thesis will also analyse qualitative data, by interviewing various experts and health professionals.

Table 10. Results of Indicator Analyses

Dimension	Indicator	Results
Efficiency	A&E Total Attendances	Overall increase before and after 2012 HSCA but softer increase after the Bill
Effectiveness	A&E Waiting Times	Decrease after 2012 HSCA
Equity	Proportion of People with Unmet Self-Declared Needs for Healthcare	Increase after 2012 HSCA
Patient Experience	Perception of Treatment with Respect & Dignity	Increase before and after 2012 HSCA but higher increase after the Bill
Health Outcomes	Percentage of 1-year Survival Rate for Children Aged 0 to 4 Years Diagnosed with Cancer	Increase before and after 2012 HSCA but higher increase after the Bill

5.2 Qualitative Results from the Interviews

Thus, the quantitative data has allowed the research to identify trends in the evolution of performance in the periods before and after the reform. However, it does not provide an explanation for these trends. Whilst competition could be taken as the main possible cause for the trends according to the quantitative analysis, qualitative data will allow the research to

further confirm or deny this effect. To do so, the research has hence conducted a series of interviews, with experts on the NHS and its evolution, as well as health care professionals. Hearing the explanations and perspectives of various experts and NHS staff, the thesis can now triangulate the quantitative data with the contents of the interviews.

When considering the evolution of performance over the period before and after the 2012 HSCA, the general feedback seems to be quite negative with regards to competition. Listening to Anonymous 1 (2018, June 17), an Associate Director for Specialised Commissioning, the effect of competition has been quite clearly negative. Talking about the 2012 reform, Collings bluntly states "*It simply didn't work*". The vision for the reform was a facilitation of choice and competition, allowing for improved performance. However, competition as such may bring about certain conditions which negatively influence performance. One of those consequences is the loss of focus or of essence. Anonymous 1 (2018, June 17) explains "*When you create a competitive or market driven entities out of the providers, a consequence of that is they become self-interested*". Essentially, providers began to focus on profit-making rather than the quality of the care. This loss of focus further influenced the decrease in performance. Anonymous 1 (2018, June 17) also goes on to detail that competition through fragmentation has had a considerable influence on performance. Through the 2012 HSCA, fragmentation was increased, with units decreasing in size. This increased fragmentation has given to two negative consequences for the performance of the NHS. Firstly, as a result of the fragmentation, qualified staff and managers are spread out, further impacting the quality of care. "*Good outcomes not only require you to have a good service, but also the concentration of clinicians and staff, to the outcomes to patients"* (Collings, 2018 June 17). Moreover, the fragmentation initiated a wave of changes in the leadership of the NHS. Therefore, with the 2012 HSCA, the NHS lost a considerable number of skilled leaders, experts in managing the system. This has thus had an extensive impact on the management of the NHS, which has trickled down into decreases in performance. The thoughts of the gentleman at the macro level of health care are also echoed by those at the micro level. Anonymous 2 (2018, June 15), a mental health nurse, also brands the latest reform as having impacted her work and its quality, "*Yes, it has, for sure*". She further explains that due to higher fragmentation, the higher number of commissions, and fragmentation due to technological developments meant staff was spread out, further leading to lower staff number. This has meant that there is more pressure on nurses, which influences the quality of care. Whilst the general feedback is quite negative, one respondent, Anonymous 3, still found that

the Bill had had a positive impact on performance, "*It definitely has*". Thus, when listening to NHS staff, it is apparent that competition would be seen as having a negative effect on performance by most, despite some opposing opinions. Based on these statements, the thesis would be inclined to accept the hypotheses which set out a negative effect of competition on performance such as hypothesis 5B, '**H5B:** Competition will negatively influence health outcome indicators of health care performance'. As such, it would be inclined to reject the hypotheses which see a positive effect of competition on performance.

Thus, competition was initially considered as a possible cause for any changes in performance seen after the 2012 HSCA. Yet, when listening to experts such as Professor Rudolf Klein, it would seem that the general context of the period could be identified as the main cause of the seen changes. As Klein (2018, June 6) explains "*financial pressures are most definitely to blame*". In 2008, most European States were affected by a financial crisis. Different countries adopted different strategies to deal with the repercussion of the financial crisis, one of which was austerity. England was one of the countries affected by austerity. This translated into considerable funding cuts for public services, including cuts in funding for the NHS (Scobie, 2018 May 18). It is these cuts in funding that were unanimously mentioned by interviewed experts. Although all participants mentioned the cuts in funding, all were also quick to explain that these cuts in funding were not total for health care. Historically, the NHS has seen an increase of approximately three to four percent every year, according to Professor Nick Black (2018, May 31). In the years following the financial crisis, the increase rate was limited to "*one point something*" (Klein, 2018 June 6). Whereas some consider the funding to have reached a plateau, Professor Nick Black (2018, May 31) explains that "*some people argue that's as good as a cut*". These cuts in funding have hence trickled down to influence the performance of the NHS. According to Klein (2018, June 6) and Scobie (2018, May 18), it is these cuts that are the main reason for the changes seen. This is echoed by Davies (2018, June 15), a mental health nurse, who feels that the recent cuts have been the biggest factor in the change within the NHS. It is the cuts in funding that have put more pressure on the staff, resulting in lower performance.

Nonetheless, Black (2018, May 31) explains that "*the reduction of quality on any of those dimensions you mentioned in some ways has been much less than has been expected*". Whilst certain areas, such as mental health, have suffered from the cuts, others have continued to grow. Activity and health outcomes have continued to improve and increase. It would seem that there was a general expectation for austerity to have scathing effects on the performance of the NHS.

Yet, although the cuts have had an impact on certain dimensions of performance, other seem to be left unaffected. This perspective brings an alternative view to the explanations given by Klein and Scobie. Certain experts may completely tie austerity to changes in all dimensions of performance. Others, on the other hand, may see the increases in performance as a sign of the weaker and softer impact of austerity than would be expected. Moreover, similarly to competition, austerity could have varying effects with different dimensions of performance. Nonetheless, the financial crisis, austerity and the consequential funding cuts could be a deciding factor in the evolution of performance in the NHS. Based on such statements, the thesis would thus be inclined to reject both set of hypotheses, which expect either a positive or negative effect of competition on performance.

6. Discussion of Findings

This Chapter will discuss the findings of the research, as found in Chapter 5. It will discuss the concepts of competition and performance, to answer its first two partial empirical questions. Having done so, it will answer the third empirical question, on the relationship between the two concepts.

6.1 Competition in the English NHS

For over three decades, the English NHS has continued on its path of competition. Starting in 1990, and further reinforced in 2012, the system and its market have taken on different forms, changing with each new Act. Having listened to experts and NHS staff and looked at the literature, the research now has a clear understanding of the current structure of the system and its competition aspects. Therefore, the research can now answer its first empirical question, 'What does competition imply in the case of the English NHS?'. Whilst there have been variations within the structure of the market, certain elements have remained stable throughout. Competition within the NHS has been solely based on a split between providers and commissions of care. This split was initiated in 1990, by Margaret Thatcher's government (Propper, Wilson & Söderlund, 1998). Providers of care were thus defined as hospitals, and services of care. Buyers of care would be commissions, organizations tasked with buying care from hospitals for the population of a set territory, and rating hospitals based on their services. Competition has thus been amongst providers, to attract the patients within commissions. The size of the associations of such commissions has varied heavily throughout the various reforms of the NHS, which is known as fragmentation. It is this fragmentation which increases or decreases competition. If commission organizations are bigger, there is a smaller number of organizations, which means there is less units for providers to compete for amongst themselves. However, if fragmentation increases and the size of the organizations shrinks, there are more organizations whose patients to compete for, which entails more competition. In the period before the 2012 HSCA, the size of the commissions was quite big. However, as explained by Anonymous 1 (2018, June 17), the 2012 HSCA further fragmented the organizational landscape, leading to smaller units in higher numbers. This increased fragmentation entails increased competition. Thus, the level of fragmentation within the competitive market has varied throughout the years, but is at a high after the 2012 HSCA, which is linked with higher competition.

Competition within the NHS must also be defined by its funding system. There are two different types of funding systems for health care: taxation and insurance (McKenna et al, 2017 March 23). In a taxation system, taxes are levied on individual citizens by the central government. Those funds are then redistributed, to pay for care. As explained by Collings (2018, June 17), this allows all individuals to be treated equally. It is thus the State that bears and handles the cost of care. The other potential system of funding is insurance. Insurances are taken on by individuals, who are assessed based on health status to establish the price of the insurance. Insurances allow for faster and preferred access to healthcare. In insurance system, care is thus not distributed equitably throughout the population, as certain benefit from advantages based on their individual insurance. Certain individuals may not be able to access care due to lack of insurance, as is the case in the USA. England is defined by its taxation system, which allows for all individuals to be treated and equally. Therefore, England is set up to be a system which provides equal care throughout and to all those in need, further influencing the quality of the care.

6.2 Performance in the English NHS

Having understood the concept of competition within the NHS, the research must now define the second core element, performance. As explained in Chapter 2, performance can take on different meanings, varying in contexts. As such, performance in the case of the English NHS has a specific meaning, which it is singular to. As explained by Klein (2018, June 6), the NHS is one of the most evaluated healthcare systems, with regards to performance. With hundreds of indicators published, the thesis chose to focus on five dimensions and five respective indicators. Therefore, performance within the English NHS must be understood based on the five core dimensions analysed: efficiency, effectiveness, equity, patient experience and health outcomes. It is, however, also essential to understand it from a practical point of view, based on the understanding of NHS professionals. Therefore, performance must also be understood as the quality of care. Although scholars may use the term as a dimension of performance, as seen in **Table 2**, health care professionals consider quality of care as the equivalent of performance. Quality of care is partially measured based on the ability to reach the targets set by the NHS. It is those targets that define the optimum level of care expected by professionals. For instances, when looking at effectiveness, with the waiting times in A&E, performance must thus be understood with the four-hour time treatment target. Therefore, performance must be understood and defined through the individual dimensions and their set targets.

6.3 Competition and Performance in the English NHS

With a clear understanding of the concepts of competition and performance within the NHS, the thesis can now provide a better understanding of the theoretical effect between the two within the NHS. It can thus answer its third empirical question, 'Is the theoretical effect of competition on performance confirmed in the specific case of the English NHS?'. When considering the question, it is essential to be aware of the different theoretical relationships between competition and performance. Two main theories of Public Administration, NPM and NPG, have two opposite effects defined, respectively positive and negative. Therefore, when considering the hypotheses, two sets are distinguished for each performance indicator with regards to competition.

The theoretical effect of competition on performance must also be distinguished between the five performance indicators. The results of the analysis of the five dimensions can be found in **Table 10**. Basing its conclusions solely on the quantitative analysis, the thesis would be inclined to define the effect of competition on performance in the English NHS as negative. This would be on the results of three dimensions showing a negative effect, and only two a positive effect. Nonetheless, the thesis must nuance this theoretical effect, on the grounds of the feedback of the interviews, which saw competition as negatively influencing performance. The results of these interviews can be found in **Table 11**. Whilst one respondent saw competition as having a positive impact on performance, most respondents saw it as having a negative impact on the quality of their work and the NHS' performance. Therefore, based on the results of the quantitative and qualitative data, the thesis would be inclined to define the effect of competition on performance in the English NHS as negative. By doing this, the thesis would be inclined to give explanatory power to the theory of NPG, which assumes a negative effect of competition on performance.

Table 10. Results of Quantitative Data

Dimension	Results of Quantitative Data	Results of Qualitative Data	Final Results	Theory with Explanatory Power
Efficiency	Increase before and after 2012 HSCA	Decrease	Positive effect	NPM

Effectiveness	Decrease after 2012 HSCA	Decrease	Negative effect	NPG
Equity	Decrease after 2012 HSCA	Decrease	Negative effect	NPG
Patient Experience	Increase before and after 2012 HSCA	Increase	Positive effect	NPM
Health Outcomes	Increase before and after 2012 HSCA	Increase	Positive effect	NPM

Table 11. Results of Qualitative Data

Respondent	**Opinion on Effect of Competition on Performance**
Scobie	Austerity Caused
Klein	Austerity Caused
Black	Positive
Anonymous 1	Negative
Anonymous 2	Negative
Anonymous 3	Positive

7. Conclusion

The final Chapter will answer the overall research question, 'What is the effect of competition on performance in the English NHS?'. It will also address the implications of the research in both practical and research terms. Finally, it will address potential future research.

7.1 The Case of the English NHS

Hence, the thesis has now considering both the quantitative and qualitative data in the previous chapters. In its first phase, the research has defined and analysed five dimensions of performance and the relating performance indicators. When analysing those indicators, the research found very mitigated results. Indicators of health outcomes and patient experience saw a significant increase in the period after the 2012 HSCA. In the dimensions of efficiency, effectiveness and equity, data showed a clear decrease. Thus, in the first phase of its analysis, the thesis had found nuanced results on the potential effect of competition on performance within the English NHS.

To triangulate the data, the thesis hence utilised qualitative data, a series of interviews, to further understand the patterns found. After interviewing experts from the Nuffield Trust as well as health care professionals, the thesis could understand the trends seen in the quantitative data. When focusing on the HSCA, most respondents saw the effect as negative. However, some respondents did not consider competition as the main cause for the seen changes, looking to the cuts in funding felt by the NHS. As explained by the various interview participants, the 2012 reform was passed in the general context of a financial crisis, leading to funding cuts which heavily influenced the ability of the NHS to perform. Thus, the positive trends seen in the data would be indicative of the work done by the NHS staff despite budget cuts and increasing pressures. Therefore, interviews provided alternative potential causal factors, to explain the trends seen in recent years in performance.

Hence, taking both the quantitative data and the qualitative data into consideration, the thesis must now answer its overall research question, 'What is the effect of competition on performance in the English NHS?'. Considering the nuanced quantitative results and the various explanations given in the qualitative data, the thesis would be inclined to conclude that the effect of competition on performance in the English NHS is uncertain. Although parts of the data would point towards a negative effect, the thesis would not be able to consider it as entirely negative given the overwhelmingly nuanced results. As such, the thesis will define the effect of competition on performance in the English NHS as uncertain.

7.2 Research and Theoretical Implications

Therefore, as the thesis would be inclined to define the effect of competition on performance as uncertain, this conclusion would have important theoretical implications. As set out in Chapter 3, the thesis chose to establish its hypotheses based on two distinct theories of Public Administration, NPM and NPG. NPM, a theory which focuses on the use of private sector mechanisms in the public sector, saw competition as positive for performance. According to NPM, in a competitive system, providers of service would be forced to compete on quality dimensions, thus allowing for an improvement of the performance of the said service. Thus, based on NPM, the thesis formulated hypotheses which saw competition as having a positive effect with the different dimensions of performance. NPG, on the other hand, is a theory which focuses on cooperation and co-production. Market mechanisms would be expected to bring about positive impact on the services, on the contrary. Hence, based on NPG, the thesis formulated hypotheses, in which competition would have a negative effect with the different dimensions of performance.

Hence, as the thesis cannot define the exact effect of competition on performance, it cannot give explanatory power to either theory. The thesis cannot define NPM nor NPG as being able to explain the effect of competition on performance in the English NHS. Therefore, the thesis aligns itself with the results of the literature analysis, in **Table 5**. The effect of competition on performance in public services, and the English NHS, has always been at the centre of a debate. Various studies have found different results, without any cohesion amongst the results. As such, as of now, neither NPM nor NPG can be considered as able to explain theoretically the existing effect of competition on performance in public services.

7.3 Practical Implications

Although there are considerable implications for the research, the results of the quantitative and qualitative data also have implications for policy-makers. Considering solely the quantitative data, the research would have been inclined to advise policy-makers to follow the path initiated in 1990, with the introduction of the single market. Efficiency, patient experience and health outcomes have all continued to improve and increase, a favourable trend. This could hence be evidence of a positive effect of competition on performance within the NHS.

However, when listening to the interviewed experts, the research would have to consider another possibility. In his interview, Professor Nick Black explained that even if competition were to have a positive impact on performance, the overall trend in action in recent years has

been a total disregard for competition. According to the 2012 HSCA, it is required by law for providers to consider different commissioners, to ensure the best possible service. If providers fail to do so, they can be taken to court. Yet, most recently, providers have been ignoring the law, focusing rather on cooperation. Black explained that the general sentiment is the following, "*Yes, that's the law, but let's see if we can all work together, be collective and come up with a single integrated system, even though the law says that we're meant to be setting up all these independent contracts, and all this competition*". Furthermore, given the recent vote in favour of Brexit and the freshness of the law, Parliament does not intend on passing a new law, to materialize this change in direction.

Therefore, even if the research were to prove a positive effect of competition on performance within the NHS, it is up to policy-makers to choose which system to adopt and implement. The research now provides a basis for policy-makers, to further understand the system in place and its impact, to allow for an educated choice on the matter.

7.4 Future Research

Through its work, the research has provided a stepping stone into the analysis of competition and performance. Therefore, the research has also shown that it is essential to analyse the impact of competition-oriented reforms on public services and their performance. Nonetheless, much more research remains necessary within the field. The research chose to focus on health care, specifically in England. With its use of five indicators, the research analysed the potential effect, positive or negative, of competition on performance in healthcare. Whilst the research allowed to discuss an essential topic for one of Europe's leading countries, its approach could be further amplified. Further research analysing and utilising data on all hospitals across England would allow to understand the matter with more detail and more complex statistics. Thus, a potential avenue for future would be further research into the impact of the 2012 Bill utilising more complex statistics, with panel data.

Moreover, the research has chosen to focus specifically on England. However, as explained in Chapter 1, competition-oriented reforms were largely advised by the OECD, leading many developed states to utilise the model. Therefore, it would be necessary for further research to be done on the impact of similar reforms across other countries. This would allow for a comparative analysis of competition-oriented policies. By comparing the impact of competition-oriented policies across various states, future research could further confirm or debunk the results of this research. Furthermore, a comparative analysis would also allow for

a better understanding of potential conditions of success and failure for such policies. As explained by the European Commission (2015), such policies and their success are influenced by the context in which they are applied. As such, comparing the impact of such policies in different settings would allow future research to analyse and understanding the conditions which favour success.

Finally, the research provides a key analysis of the impact of competition-oriented reforms within healthcare. Nonetheless, competition-oriented policies are present across a variety of different public services. Therefore, whilst the research provides a first insight into the impact of such policies, much more remains to be done on public services in general. Therefore, a potential avenue for future research would be the analysis of competition-oriented policies in various public services. Different public services may bring about different outcomes. Thus, more research into the effect of competition on performance of public services would be essential for the field of Public Management.

8. References

Andersen, L., Boesen, A., & Pedersen, L. (2016). Performance in Public Organizations: Clarifying the Conceptual Space. *Public Administration Review*, 76(6), 852-862.

Andrews, R. (2011). NPM and the Search for Efficiency. In Christensen, T., & Lægreid, P. (Eds). *The Ashgate Research Companion to New Public Management* (pp.281-294). Farnham: Ashgate Publishing Limited.

Andrews, R., Boyne, G., & Walker, R. (2011). Dimensions of Publicness and Organizational Performance: A Review of the Evidence. *Journal of Public Administration Research and Theory*, 21, i309-i319.

Andritsos, D., & Aflaki, S. (2015). Competition and the Operational Performance of Hospitals: The Role of Hospital Objectives. *Production and Operations Management*, 24(11), 1812-1832.

Ayres, L. (2012). Semi-Structured Interviews. In Given, L. (Ed.), *The Sage Encyclopaedia of Qualitative Research Methods* (pp.811), Thousand Oaks: SAGE Publications.

BBC News (2014, November 21). MPs Back Bill Designed to Limit NHS Privatisation. *BBC News*. Retrieved from http://www.bbc.com/news/health-30137368.

BBC News (2012, February 26). NHS Bill is a Mess, Says Former Chief Executive. *BBC News*. Retrieved from http://www.bbc.com/news/uk-politics-17169519.

Berta, P., Martini, G., Moscone, F., & Vittadini, G. (2016). The Association Between Asymmetric Information, Hospital Competition and Quality of Healthcare: Evidence from Italy. *Journal of the Royal Statistical Society*, 179(4), 907-926.

Bevan, G., & Skellern, M. (2011). Does Competition Between Hospitals Improve Clinical Quality? A Review of Evidence from Two Eras of Competition in the English NHS. *English Medical Journal*, 343(6470), 1-7.

Bloom, N., Propper, C., Seiler, S., & Van Reenen, J. (2010). *The Impact of Competition on Management Quality: Evidence from Public Hospitals.* Cambridge, MA: National Bureau of Economic Research.

Boland, T., & Fowler, A. (2000). A Systematic Perspective of Performance Management in Public Sector Organizations. *International Journal of Public Sector Management*, 13(5), 417-446

Bouckaert, G., & Halligan, J. (2008). *Managing Performance: International Comparisons*. Oxon: Routledge.

Bouckaert, G., & Van Dooren, W. (2009). Performance Measurement and Management in Public Sector Organizations. In Bovaird, T., & Löffler, E. (Eds). *Public Management and Governance* (pp.151-164). Oxon: Routledge.

Boyne, G., (1996). Competition and Local Government: A Public Choice Perspective. *Urban Studies,* 33(4-5), 703-721.

Boyne, G. (2003). Sources of Public Service Improvement: A Critical Review and Research Agenda. *Journal of Public Administration Research and Theory*, 13(3), 367-394.

Brignall, T., Fitzgerald, L., Johnston, R., & Silvestro, R. (1991). Performance Measurement in Service Businesses. *Management Accounting,* 69(10), 34-36.

Brimelow, A. (2012, February 23). Children's Doctors Join Calls to Drop Health Bill. *BBC News*. Retrieved from http://www.bbc.com/news/health-17142643.

Busk, P., & Marascuilo, L. (1992). Statistical Analysis in Single-Case Research: Issues, Procedures, and Recommendations, with Applications to Multiple Behaviors. In Kratchwill, T., & Levin, J. (Eds). *Single-Case Research Design and Analysis*, (pp.159-186). New York, NY: Routledge.

Care Quality Commission (2016). *Adult Inpatient Survey*. London: Care Quality Commission. Retrieved from Care Quality Commission: http://www.cqc.org.uk/publications/surveys/adult-inpatient-survey-2016.

Common, R., Flynn, N., & Mellon, E. (1992). *Managing Public Services: Competition and Decentralization*. Oxford: Butterworth-Heinemann.

Cooper, Z., Gibbons, S., Jones, S., & McGuire, A. (2011). Does Hospital Competition Save Lives? Evidence from the English NHS Patient Choice Reforms. *The Economic Journal*, 121, F228-F260.

Cowing, M., Davino-Ramaya, C., Ramaya, K., & Szmerekovsky, J. (2009). Health Care Delivery Performance: Services, Outcomes, and Resource Stewardship. *The Permanente Journal*, 13(4), 72-78.

Creswell, J., & Plano Clark, V. (2011). *Designing and Conducting Mixed Methods Research.* Thousand Oaks, CA: Sage Publications.

Davies, A. (2013). This Time, It's for Real: The Health and Social Care Act 2012. *The Modern Law Review*, 76(3), 564-588.

Davis, P., Milne, B., Parker, K., Hider, P., Lay-Yee, R., Cumming, J., & Graham, P. (2013). Efficiency, Effectiveness, Equity: Evaluating Hospital Performance in Three Dimensions. *Health Policy*, 112, 19-27.

De Bruijne, H. (2002). *Managing Performance in the Public Sector*. London: Routledge.

Denhart, J., & Denhart, R. (2000). The New Public Service: Serving, Not Steering. *Public Administration Review*, 60(6), 549-559.

Denhart, J., & Denhart, R. (2007). *The New Public Service: Serving, Not Steering*. Armonk, NY: M.E.Sharpe.

Doherty, T., Horne, T., & Wootton, S. (2014). Managing Public Services – Implementing Changes: A Thoughtful Approach to the Practice of Management. London: Routledge.

Elg, M., Broryd, K., & Kollberg, B. (2013). Performance Measurement to Drive Improvements in Healthcare Practice. *International Journal of Operations & Production Managemen*t, 33(11/12), 1623-1651.

European Commission (2015). *Competition Among Health Care Providers*. Brussels: European Commission.

European Commission (2018). *Call for Tenders*. Retrieved from https://ec.europa.eu/growth/contracts-grants/calls-for-tenders/about-our-tenders_es.

European Core Health Indicators (2018). ECHI Data Tool. Retrieved from https://ec.europa.eu/health/indicators_data/indicators_en.

Ferlie, E. (1996). *The New Public Management in Action*. Oxford: Oxford University Press.

Frederickson, H., Smith, K., Larimer, C., & Licari, M. (2012). *The Public Administration Theory Primer*. Boulder: Westview Press.

Foster, J., Barkus, E., & Yavorsky, C. (2011) *Understanding and Using Advanced Statistics*. London: Sage Publications Ltd.

Garcia, F., & Wantchekon, L. (2010). Theory, External Validity and Experimental Inference: Some Conjectures. *The Annals of the American Academy*, 628, 132-147.

Gaynor, M. (2006). *What Do We Know About Competition and Quality in Health Care Markets?*. Cambridge, MA: National Bureau of Economic Research.

Gaynor, M., Laudicella, M., & Propper, C. (2011). *Can Governments Do It Better? Merger Mania and Hospital Outcomes in the English NHS*. Cambridge, MA: National Bureau of Economic Research.

Gaynor, M., Moreno-Serra, R., & Propper, C. (2012). Can Competition Improve Outcomes in UK Health Care? Lessons from the Past Two Decades. *Journal of Health Services Research & Policy*, 17(1), 49-54.

Gerring, J., (2007). *Case Study Research: Principles and Practices*. Cambridge: Cambridge University Press.

Griffith, J., Alexander, J., & Warden, G. (2002). Measuring Comparative Hospital Performance. *Journal of Healthcare Management*, 47(1), 41-57.

Gruening, G. (2001). Origin and Theoretical Basis of New Public Management. *International Public Management Journal*, 4, 1-25.

Gu, X., & Itoh, K. (2016). Performance Indicators: Healthcare Professionals' View. *International Journal of Health Care Quality Assurance*, 29(7), 801-815.

Heale, R., & Twycross, A. (2015). Validity and Reliability in Quantitative Studies. *Evidence Based Nursing*, 18(3), 66-67.

Health and Social Care Act 2012 (UK).

Heijink, R., Mosca, I., & Westert, G. (2013). Effects of Regulated Competition on Key Outcome of Care: Cataract Surgeries in the Netherlands. *Health Policy*, 113, 142-150.

Hobday, P. (2013, April 15). Why I Am Stepping Down as a GP over NHS Reforms. *The Guardian*. Retrieved from https://www.theguardian.com/commentisfree/2013/apr/25/why-im-stepping-down-as-nhs-gp.

Hood, C. (1991). A Public Management for All Seasons?. *Public Administration*, 69, 3-19.

Hsieh, H., & Shannon, S. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, 15(9), 1277-1288.

Jarrar, Y., & Schiuma, G. (2007). Measuring Performance in the Public Sector: Challenges and Trends. *Measuring Business Excellence*, 11(4), 4-8.

Kelley, E., & Hurst, J. (2006). Health Care Quality Indicators Project Conceptual Framework Paper. Paris: OECD.

Kessler, D., & Geppert, J. (2005). The Effects of Competition on Variation in the Quality and Costs of Medical Care. *Journal of Economics and Management Strategy*, 14(3), 575-89.

Kessler, D., & McClellan, M. (2000). Is Hospital Competition Socially Wasteful?. *The Quarterly Journal of Economics*, 115(2), 577-615.

Khalifa, M., & Khalid, P. (2015). Developing Strategic Health Care Key Performance Indicators: A Case Study on a Tertiary Care Hospital. *Procedia Computer Science*, 63, 459-466.

Klassen, A., Miller, A., Anderson, M., Shen, J., Schiariti, V., & O'Donnel, M. (2010). Performance Measurement and Improvement Frameworks in Health, Education and Social Services Systems: A Systematic Review. *International Journal for Quality in Health Care*, 22(1), 44-69.

Le Grand, J. (2007). The Other Invisible Hand: Delivering Public Services Through Choice and Competition. Princeton: Princeton University Press.

Le Grand, J., (2009). Choice and Competition in Publicly Funded Health Care. *Health Economics, Policy & Law*, 4, 470-488.

Lynch, R., & Cross, K. (1991). Measure Up! The Essential Guide to Measuring Business Performance. London: Mandarin.

Marr, B. (2009). *Managing and Delivering Performance.* Burlington, MA: Elsevier.

McKenna, H., Dunn, P., Northern, E., & Buckley, T. (2017, March 23). *How Healthcare is Funded*. Retrieved from https://www.kingsfund.org.uk/publications/how-health-care-is-funded.

NHS England (2018). *A&E Attendances and Emergency Admissions*. Retrieved from https://www.england.nhs.uk/statistics/statistical-work-areas/ae-waiting-times-and-activity/.

Nuffield Trust (2018 A). *The History of NHS Reform*. Retrieved from http://nhstimeline.nuffieldtrust.org.uk.

Nuffield Trust (2018 B). *About*. Retrieved from https://www.nuffieldtrust.org.uk/about.

Nyhan, R., & Marlowe, H. (1995). Performance Measurement in the Public Sector: Challenges and Opportunities. *Public Productivity and Management Review*, 18(4), 333-348.

OECD (2010). Public Administration after "New Public Management". Paris: OECD.

OECD (2012). Competition in Hospital Services. Paris: OECD.

Office for National Statistics (2017). Childhood Cancer Survival in England. Retrieved from https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/childhoodcancersurvivalinengland.

Osborne, S. (2006). The New Public Governance?. *Public Management Review*, 8(3), 377-387.

Osborne, S., Bovaird, T., Martin, S., Tricker, M., & Waterston, P. (1995). Performance Management and Accountability in Complex Public Programmes. *Financial Accountability & Management*, 11(1), 19-37.

Osborne, S., Radnor, Z., & Nasi, G. (2012). A New Theory for Public Service Management? Towards a (Public) Service-Dominant Approach. *The American Review of Public Administration*, 43(2), 135-158.

O'Toole, L. (2015). Networks & Networking: The Public Administrative Agendas. *Public Administration Review*, 75(3), 361-371.

Pan, J., Qin, X., Li, Q., Messina, J., & Delamater, P. (2015). Does Hospital Competition Improve Health Care Delivery in China?. *China Economic Review*, 33, 179-199.

Payne, G., & Payne, J. (2004). *Key Concepts in Social Research*. Thousand Oaks, CA: Sage Publications Ltd.

Pollitt, C. (2003). *The Essential Public Manager*. Philadelphia: Open University Press.

Pollitt, C., & Bouckaert, G. (2011). Public Management Reform: A Comparative Analysis – New Public Management, Governance and the Neo-Weberian State. Oxford: Oxford University Press.

Propper, C., Burgess, S., & Gossage, D. (2008). Competition and Quality: Evidence from the NHS Internal Market 1991-9. *The Economic Journal*, 118, 138-170.

Propper, C., Burgess, S., & Green, K. (2004). Does Competition Between Hospitals Improve Quality of Care? Hospital Death Rates and the NHS Internal Market. *Journal of Public Economics*, 88, 1247-1272.

Propper, C., Wilson, D., & Söderlund, N. (1998). The Effects of Regulation and Competition in the NHS Internal Market: The Case of General Practice Fundholder Prices. *Journal of Health Economics*, 17, 645-673.

Purbey, S., Mukherjee, K., & Bhar, C. (2007). Performance Measurement System for Healthcare Processes. *International Journal of Productivity and Performance Management*, 56(3), 241-251.

Quality Watch (2018 A). A&E Waiting Times. Retrieved from http://www.qualitywatch.org.uk/indicator/ae-waiting-times.

Quality Watch (2018 B). Dignity, Respect and Privacy in Hospitals. Retrieved from http://www.qualitywatch.org.uk/indicator/dignity-respect-and-privacy-hospitals.

Rhodes, R. (1999). Traditions and Public Sector Reform: Comparing Britain and Denmark. *Scandinavian Political Studies*, 22(4), 341-370.

Saldaña, J. (2009). *The Coding Manual for Qualitative Researchers*. Thousands Oaks, CA: Sage Publications Ltd.

Sanderson, M., Allen, P., & Osipovic, D. (2017). The Regulation of Competition in the National Health Service (NHS): What Differences Has the Health and Social Care Act 2012 Made?. *Health Economics, Policy & Law*, 12, 1-19.

Scanlon, D., Swaminathan, S., Lee, W., & Chernew, M. (2008). Does Competition Improve Health Care Quality?. *Health Services Research*, 43(6), 1931-1951.

Shaked, A., & Sutton, J. (1982). Relaxing Price Competition Through Product Differentiation. *The Review of Economic Studies*, 49(1), 3-13.

Shi, R., & McLarty, JW. (2009). Descriptive Statistics. *Annals of Allergy, Asthma & Immunology*, 103(4), S9-S14.

Simonet, D. (2015). The New Public Management Theory in the English Health Care System: A Critical Review. *Administration & Society*, 47(7), 802-826.

Smith, P., Mossialos, E., & Papanicolas, I. (2008). *Performance Measurement for Health System Improvement: Experiences, Challenges and Prospects*. Copenhagen: World Health Organisation.

Smyth, J. (1997). Competition as a Means from Procuring Public Services: Lessons from the UK for the US Experience. *International Journal of Public Sector Management*, 10(1/2), 21-46.

Spano, A., & Aroni, A. (2018). Organizational Performance in the Italian Health Care Sector. In Borgonovi, E., Anessi-Pessina, E., & Bianchi, C. (Eds). *Outcome-Based Performance Management in the Public Sector,* (pp.25-43). Cham: Springer.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of Mixed Methods Research*. Thousand Oaks: Sage Publications Ltd.

The National Archives (2013). *A&E Attendances*. Retrieved from http://webarchive.nationalarchives.gov.uk/20130104202127/http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/Performancedataandstatistics/AccidentandEmergency/DH_077485.

Tufte, E. (2003). T*he Visual Display of Quantitative Information*. Cheshire, CN: Graphics Press.

Van Thiel, S., & Leeuw, F. (2002). The Performance Paradox in the Public Sector. Public *Performance & Management Review*, 25(3), 267-281.

Veillard, J., Champagne, F., Kalzinga, N., Kazandjian, V., Arah, OA., & Guisset, AL. (2005). A Performance Assessment Framework for Hospitals: the WHO Regional Office for Europe PATH Project. *International Journal for Quality in Health Care*, 17(6), 487-496.

Verbeeten, F. (2008). Performance Management Practices in Public Sector Organizations: Impact on Performance. *Accounting, Auditing & Accountability Journal*, 21(3), 427-454.

Wiesel, F., & Modell, S. (2014). From New Public Management to New Public Governance? Hybridization and Implications for Public Sector Consumerism. *Financial Accountability & Management*, 30(2), 175-205.

Xu, R., Sun, Q., & Si, W. (2015). The Third Wave of Public Administration: The New Public Governance. *Canadian Social Sciences*, 11(7), 11-21.

9. Appendices

9.1 Appendix 1. Lexicon

Provider Organizations - Provider organizations are groups, composed of multiple providers. In the NHS, this would be groups of hospitals. In previous legislations, two types of organizations were differentiated. This distinction was abolished with the 2012 HSCA.

Purchaser Organizations - Purchaser organizations, also called buyer organizations, are groups of commissions. Commissions are defined on the basis of territory and can thus be grouped by region. The size of these commissions and their groupings vary according to legislations, and thus the strength of competition.

Clinical Performance Measures - Clinical performance measures are measures of health care performance.

Outpatients - Outpatients are patients which have not been admitted into the hospitals.

Inpatients - Inpatients are patients which have been formally admitted into hospital based on doctor's orders.

9.2 Appendix 2. Performance Indicators, their Source and their Dimension

Source	#	Indicator	Performance Dimension
OECD	1	Doctors' consultations	Efficiency
OECD	2	Child vaccination rates	Efficiency
OECD	3	Influenza vaccination rates	Efficiency
OECD	4	Length of hospital stays	Effectiveness
OECD	5	Hospital discharges	Effectiveness
OECD	6	Caesarean sections	Effectiveness
OECD	7	Life expectancy at birth	Outcomes
OECD	8	Life expectancy at 65	Outcomes
OECD	9	Infant mortality	Outcomes

OECD	10	Deaths from cancer	Outcomes
World Bank	11	Maternal mortality rate	Outcomes
World Bank	12	Tuberculosis detection rate	Effectiveness
World Bank	13	Tuberculosis treatment success rate	Effectiveness
World Bank	14	Mortality rate neonatal	Outcomes
ECHI	15	Proportion of people with self-declared unmet needs for healthcare	Equity
ECHI	16	Proportion of people with low educational level and self-declared unmet needs	Equity
ECHI	17	Proportion of people with medium educational level and self-declared unmet needs	Equity
ECHI	18	Proportion of people with high educational level with self-declared unmet needs	Equity
ECHI	19	Proportion of people in the first quintile of equivalised income with unmet needs	Equity
ECHI	20	Proportion of people in the second quintile of equivalised income with unmet needs	Equity
ECHI	21	Proportion of people in the third quintile of equivalised income with unmet needs	Equity
ECHI	22	Proportion of people in the fourth quintile of equivalised income with unmet needs	Equity
ECHI	23	Proportion of people in the fifth quintile of equivalised income with unmet needs	Equity
ECHI	24	Percentage of infants' coverage against diphtheria	Efficiency
ECHI	25	Percentage of infants' coverage against tetanus	Efficiency
ECHI	26	Percentage of infants' coverage against pertussis	Efficiency
ECHI	27	Percentage of infants' coverage against poliomyelitis	Efficiency
ECHI	28	Percentage of infants' coverage against rubella	Efficiency
ECHI	29	Percentage of infants' coverage against measles	Efficiency
ECHI	30	Percentage of infants' coverage against mumps	Efficiency

WHO	31	Child mortality rate	Outcomes
WHO	32	Child mortality - Prematurity	Outcomes
WHO	33	Child mortality - Meningitis/Encephalitis	Outcomes
WHO	34	Child mortality - Acute lower respiratory infections	Outcomes
WHO	35	Child mortality - Birth asphyxia & birth trauma	Outcomes
WHO	36	Child mortality - Congenital anomalies	Outcomes
WHO	37	Immunization Hib3	Efficiency
WHO	38	Immunization Polio	Efficiency
WHO	39	Vaccination preventable cases of measles	Effectiveness
WHO	40	Vaccine preventable cases of diphtheria	Effectiveness
WHO	41	Vaccine preventable cases of mumps	Effectiveness
WHO	42	Vaccine preventable cases of total tetanus	Effectiveness
WHO	43	Prevalence of anaemia in pregnant women	Outcomes
WHO	44	Prevalence of anaemia in non-pregnant women	Outcomes
WHO	45	Prevalence of anaemia in women of child bearing age	Outcomes
Nuffield Trust	46	People spending more than 4 hours in A&E	Equity
Nuffield Trust	47	Proportion of people receiving diagnostic tests within 6 or 13 weeks	Equity
Nuffield Trust	48	Average wait for diagnostic test	Equity
Nuffield Trust	49	Number of patients waiting for diagnostic tests	Equity
Nuffield Trust	50	Waiting times for cancer treatment	Equity
Nuffield Trust	51	Waiting times for subsequent treatment	Equity

Nuffield Trust	52	Percentage of staff saying their work makes a difference	Patient Experience
Nuffield Trust	53	Percentage of staff pleased with quality and performance of care they give	Patient Experience
Nuffield Trust	54	Cancelled elective operations	Efficiency
Nuffield Trust	55	Patient perceptions of number of nurses	Patient Experience
Nuffield Trust	56	Rates of STI diagnoses in England	Efficiency
Nuffield Trust	57	Late HIV diagnosis	Efficiency
Nuffield Trust	58	Proportion of people admitted with hip fractures operated on within 24 or 48 hours	Efficiency
Nuffield Trust	59	Proportion of children and young people treated with diabetes receiving recommended care	Effectiveness
Nuffield Trust	60	Infant mortality	Outcomes
Nuffield Trust	61	Emergency unplanned admissions for young people under 19 for asthma, diabetes and epilepsy	Effectiveness
Nuffield Trust	62	Breast cancer mortality	Outcomes
Nuffield Trust	63	Cervical cancer mortality	Outcomes
Nuffield Trust	64	Percentage of adult flu coverage	Efficiency
Nuffield Trust	65	Vaccination coverage of children by their second birthday MMR	Efficiency
Nuffield Trust	66	DTP immunisation coverage	Efficiency
Nuffield Trust	67	Measles immunisation coverage	Efficiency
Nuffield Trust	68	Women screened for cervical and breast cancer	Effectiveness
Nuffield Trust	69	Proportion of women invited for a screening	Effectiveness
Nuffield Trust	70	QOF effectiveness	Effectiveness
Nuffield Trust	71	Patients feeling supported in the management of long term conditions	Patient Experience
Nuffield Trust	72	Percentage of staff agreeing that their work makes a difference	Patient Experience

Nuffield Trust	73	Number of patients warned about potential medication side effects	Patient Experience
Nuffield Trust	74	Number of patients warned of warning sides	Patient Experience
Nuffield Trust	75	Patients views on the treatment with respect, dignity	Patient Experience
Nuffield Trust	76	Patients feeling as treated with privacy	Patient Experience
Nuffield Trust	77	Patients feeling that staff helped control pain	Patient Experience
Nuffield Trust	78	Clinicians talking as if patients weren't there	Patient Experience
Nuffield Trust	79	Perceptions of involvement in decisions on care and treatment	Patient Experience
Nuffield Trust	80	Healthcare associated infections - Clostridium	Patient Experience
Nuffield Trust	81	Healthcare associated infections - MRSA	Patient Experience
Nuffield Trust	82	Number of patients warned about who to contact	Patient Experience
Nuffield Trust	83	Number of admissions due to falls	Effectiveness
Nuffield Trust	84	Violence against NHS from patients or relatives	Patient Experience
Nuffield Trust	85	Proportion of patients feeling threatened during their stay	Patient Experience
NHS	86	A&E Attendances and Emergency Admissions	Efficiency
NHS	87	Bed Availability and Occupancy	Efficiency
NHS	88	Cancelled Elective Operations	Efficiency
NHS	89	Child Immunisation	Effectiveness
NHS	90	Delayed Transfers of Care	Effectiveness
NHS	91	Hospital Activity	Efficiency
CQC	92	Privacy Given During Examination in A&E	Patient Experience
CQC	93	Waiting time	Effectiveness

CQC	94	Talked about as if not there	Patient Experience
CQC	95	Involved in decisions about care	Patient Experience
CQC	96	Operation or Procedure	Efficiency
CQC	97	Explanation about Risks	Patient Experience
CQC	98	Explanation about Procedure	Patient Experience
CQC	99	Explanation about Post-Procedure	Patient Experience
CQC	100	Questions about Procedure Answered	Patient Experience
CQC	101	Post-Procedure Explanation	Patient Experience
CQC	102	Discharge Delayed	Effectiveness
CQC	103	Discharge Medication Information	Patient Experience
ONS	104	Avoidable Mortality	Health Outcomes
ONS	105	Unexplained deaths in infancy	Health Outcomes
ONS	106	Child mortality	Health Outcomes
ONS	107	Cancer Survival in Adults	Health Outcomes
ONS	108	Cancer Survival in Children	Health Outcomes

9.3 Appendix 3. Interview Guide for Semi-Structured Interviews

Potential Topics to Be Covered
1. The 2012 Health and Social Care Act 2. Competition in the NHS 3. Performance in the NHS 4. Effectiveness 5. Efficiency 6. Equity

7. Patient Experience
8. Health Outcomes
9. Link between Competition and Performance
10. Other Factors Influencing Performance

Potential Questions to Be Covered

1. Which dimensions would you consider most important in healthcare? Why?
2. Do you feel that the introduction of competition measures has influenced the NHS' performance? If yes, how so?
3. Do you feel that the 2012 HSCA has influenced? If yes, how so?
4. Do you feel that the Bill has influenced the NHS' effectiveness?
5. Do you feel that the Bill has influenced the NHS' efficiency?
6. Do you feel that the Bill has influenced the NHS' equity?
7. Do you feel that the Bill has influenced patients' experiences within the NHS?
8. Do you feel that the Bill has influenced health outcomes within the NHS?
9. Do you feel that other factors could have influenced performance?
10. What is your opinion on the results of the statistical analysis of the performance of the NHS, with regards to effectiveness?
11. What is your opinion on the results of the statistical analysis of the performance of the NHS, with regards to efficiency?
12. What is your opinion on the results of the statistical analysis of the performance of the NHS, with regards to equity?
13. What is your opinion on the results of the statistical analysis of the performance of the NHS, with regards to patient experience?
14. What is your opinion on the results of the statistical analysis of the performance of the NHS, with regards to health outcomes?
15. Do you feel that performance can be influenced by other factors than the Bill? If so, which factors?

9.4 Appendix 4. Pre-Collection Set of Codes

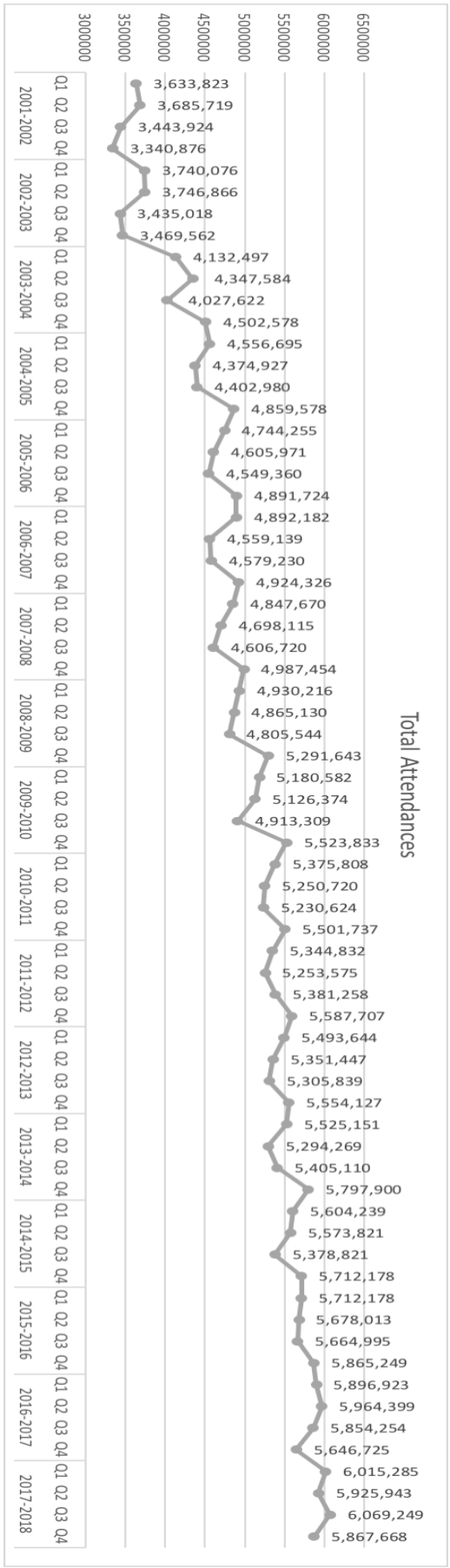
Category	Code	Category	Code
Performance	Efficiency	Context	Economic Crisis
	Effectiveness		Funding

	Equity		Technology
	Patient Experience		Population
	Health Outcomes		Information
	Dimension		Treatment
	Indicator	Effect	Positive
Case	Competition		Negative
	Split		Increase
	Providers		Decrease
	Commissioners		Evolution

9.5 Appendix 5. Post-Collection Set of Codes

Category	Code	Category	Code
Performance	Efficiency	Context	Economic Crisis
	Effectiveness		Funding
	Equity		Austerity
	Patient Experience		Money
	Health Outcomes		Resources
	Productivity		Law
	Quality		Parliament
	Activity		Reform
	Measures	Effect	Positive
NPM	Indicator		Negative
	Competition		Plateau
	Split		Expected
	Commissioning		Unexpected
	Balance		Absent
	Size		Impact
	Providers	HealthCare	Nature
	Contracts		Staff
	Balance		Redundancies
	Fragmentation		Skillset
	Power		General Practitioners
	Choice		Commissioners

9.6 Appendix 6. Quarterly A&E Total Attendances



9.7 Appendix 7. Quarterly A&E Waiting Times