



EAS Briefing Note 3

## **Evidence Advisory System Briefing Notes: England**

Ioana Vlad, Ben Hawkins, Stefanie Ettelt

November 2016

London School of Hygiene and Tropical Medicine

GRIP-Health Programme

[www.lshtm.ac.uk/groups/griphealth](http://www.lshtm.ac.uk/groups/griphealth)

GETTING RESEARCH INTO HEALTH POLICY AND PRACTICE

**GRIPHEALTH**

## Contents

|       |  |    |
|-------|--|----|
| 1     | Introduction.....                              | 2  |
| 2     | Background.....                                | 3  |
| 3     | Primary decision making points for health..... | 5  |
| 3.1   | Legislature.....                               | 6  |
| 3.2   | Department of Health.....                      | 6  |
| 3.2.1 | Arm’s-length Bodies.....                       | 6  |
| 3.3   | Local bodies.....                              | 7  |
| 3.3.1 | Clinical Commissioning Groups.....             | 7  |
| 3.3.2 | Local authorities.....                         | 8  |
| 4     | Entry points for research evidence.....        | 8  |
| 4.1   | Formal Systems.....                            | 8  |
| 4.2   | Informal systems.....                          | 11 |
| 5     | Discussion.....                                | 11 |
| 6     | References.....                                | 12 |

## 1 Introduction

There has been a growing global concern for improving the use of evidence to inform health policy in recent years. Increasingly there is recognition that individual projects or programmes building evidence synthesis skills, may be limited in their effect without a broader consideration of the systems in place which 'embed' or 'institutionalise' evidence informed policy making practices (Alliance for Health Policy and Systems Research and WHO 2007).

The GRIP-Health programme is a five year project supported by the European Research Council which studies the political nature of health policy to understand how to best improve the use of evidence. This explicitly political lens enables us to focus on the contested nature of health issues as well as the institutions that shape the use of evidence in health policy making. We understand institutions as including both formal structures and rules, as well as informal norms and practices (Lowndes and Roberts 2013). The GRIP-Health programme follows the World Health Organization's view that Ministries of Health remain the ultimate stewards of a nation's health, and further play a key role in providing information to guide health decisions (World Health Organization 2000, Alvarez-Rosette, Hawkins, and Parkhurst 2013). As such, GRIP-Health is particularly concerned with the structures and rules created by government to gather, synthesise, or otherwise provide evidence to inform policy making.

This working paper is one of a series of six briefs covering a set of countries in which the GRIP-Health programme is undertaking research. This brief presents an overview of what is termed the 'Evidence Advisory System' (EAS) for health policy making within the country of interest, which is taken to encompass the key entry points through which research evidence can make its way into relevant health policy decisions. This can include both formal (government mandated) and informal structures, rules, and norms in place.

Individual reports in this series can be useful for those considering how to improve evidence use in specific country settings, while taken together the reports identify the differences that can be seen across contexts, permitting reflection or comparison across countries about how evidence advisory systems are structured – including which responsibilities are given to different types of bodies, and how well evidence advice aligns with decision making authority structures.

This paper describes the evidence advisory system for health policy-making in England, a high-income country part of the United Kingdom of Great Britain and Northern Ireland (UK), with a centralised national health system, the NHS. Evidence use is a prominent theme in the discourse of health policy-making in England, which can be traced back to the evidence-based medicine movement (H. Davies and Nutley 2000). There is a strong scientific tradition that has developed since the 18<sup>th</sup> century, bringing about a confident and pluralistic research community. These

activities have also contributed to the extensive research infrastructure that government has built over time, which is reflected in the size and diversity of the evidence advisory system. The main turning points for the development of this evidence infrastructure refer to: the creation of a government research department; the diversification of research funders and providers; the increased use of processes for external audit and peer review; as well as the creation of the so-called arm's-length bodies with a role in funding research for social policies. Another major driver of evidence use was the dual agenda of modernising government through an outward looking, informed policy making style that explicitly sought to include research and researchers. It also aligned with the emphasis on performance management that has ebbed and flowed through the government bureaucracy since the 1980s, giving importance to evaluation and performance audits for government programmes (including clinical audits in the NHS) (Nutley and Webb 2000). Combined, these trends have led to a prominent belief that research can establish “what works” in policy and that good policy-making should be informed by evidence to improve both policy formulation and service delivery (Nutley and Webb 2000; Mulgan and Puttick 2013).

## 2 Background

England has a population of 53.9 million, accounting for 85% of the entire UK population (64.1 million) (Office for National Statistics 2013). Similarly, England's gross domestic product (GDP) represents approximately 85% of the UK GDP - out of the current of GDP per capita of US\$ 43,734 (World Bank 2016) -, which reflects, in part, its relative size within the UK (Office for National Statistics 2014), and classifies it as a high-income country. The current GDP per capita in the UK is US\$ 43,734.

The UK is a constitutional monarchy, with a bi-cameral Parliament comprised of an upper house, the House of Lords, and a lower house, the House of Commons, exercising legislative power. Both chambers are responsible for passing legislation and scrutinising the work of the Government. The members of the House of Commons are elected every five years. The members of the House of Lords are appointed by the Sovereign at the recommendation of the main political parties, with the exception of a number of seats for internally elected or hereditary members and for Church of England representatives. The UK Government is formed by the political party or coalition that wins the highest number of seats in general elections (UK Parliament, 2015). The Sovereign, a Queen or a King who is the Head of State, appoints the leader of the winning party or coalition as Prime Minister, who then appoints ministers and forms the Cabinet (British Monarchy 2015).

An important characteristic of governance in England stems from the parliamentary reforms in the 1990s, known as “devolution”, which led to the creation of National Assemblies and Governments for Wales, Scotland, and Northern Ireland. England remained “undeveloped”, which means that governance in England has remained centralised, under the authority of the UK Parliament and Government. However, some Government departments have England-only responsibilities (e.g. the Department of Health) (UK Parliament, 2015). Concerns about the lack of distinction between the UK and England institutions and the fact that decisions made for England often also affect the other regions have been voiced but are as yet unresolved (Jeffery 2007; UK Government 2014).

The UK National Health Service (NHS) was created in 1948 following the National Health Service Act (1946) which first stated the still-maintained aim of providing health care services free at the point of delivery. As a consequence of devolution, the UK now has four distinct health systems, managed by devolved bodies (Bevan et al. 2014). The NHS in England is financed through general taxation and national insurance contributions. Private medical insurance is used by approximately 13% of the population for acute elective care in the private sector. Primary care includes the services of general practitioners (GPs) who are the first point of care within the NHS. Secondary and tertiary care are provided by specialist health care professionals who work in acute trusts (NHS England 2014).

Although the vast majority of the care provided in the NHS is publicly funded, there has been an increase in private providers as a result of Government policies pursuing a mix of private and public provision (Boyle 2011). In 1997, the Labour Government set out to decentralize decision-making and shift responsibility towards the regional and local levels. More recently, the Coalition government under David Cameron initiated a set of NHS reforms that resulted in the Health and Social Care Act 2012. Main changes include new care commissioning rules, and the shifting of key governance functions from the Department of Health to NHS England and moving responsibility for public health and health promotion from central level to local authorities (Department of Health 2012).

### 3 Primary decision making points for health

While there is a general use of terminology such as 'Evidence Based Policy' or 'Evidence Informed Policy' in the health sector, what 'policy' is, is all but unambiguous. 'Policy' can refer to a range of concepts from projects and programmes, to sector-specific plans, to broad statements of intent (Hogwood and Gunn 1984). Policy is also not the responsibility of a single body; rather, policy decisions affecting health take place across a range of governmental levels and authorities.

This lack of a universal object of study complicates health policy research. However, there are some types of decisions common to many countries' health sectors for which research evidence is often held as critical. This allows a basic classification of decision types to provide at least a starting point for comparisons/analyses of country evidence advisory systems, as follows:

- Public Health and Health Promotion: Usually high level decisions affecting large segments of the population. Can involve agencies outside the health service and broader sectoral interests. Often the responsibility of national legislatures, ministries of health, or devolved authorities. Common examples include: tobacco control, occupational health, healthy eating, sanitation, etc. A broad range of evidence will be relevant to such decisions, including epidemiological, economic, social attitude, and others which speak to relevant decision criteria.
  - Health Service Priority Setting and Management: Decisions concerned with the allocation of resources across the health system or the structure of service provision and funding, including priorities within the system. Often the responsibility of Ministries of Health or national health services. Common examples: Health system priorities, health worker responsibilities, resource generation or allocation decisions, etc. Relevant evidence forms include health technology appraisals/assessments (HTA), epidemiological and clinical studies, health services research, etc.
  - Programme Planning: Decisions within the remit of specialised agencies, such as programmes dedicated to individual conditions (malaria, HIV, cancer, etc.). Decisions within these bodies often require evidence both about efficacy or cost effectiveness of different prevention and treatment options, but equally often are informed by locally generated data (e.g. routine data from surveillance or facility information).
- Service Provider Decision Making is the most specific and tailored to individual cases. It can be health centre or hospital policies, or individual clinician decisions about patient care. Relevant evidence may include specific case details or specific realities of the context as well as more top-down use of guidelines.

In addition to these types of health decisions, this working paper also recognises that decision making for health can take place at different levels within government hierarchies, with authority for decisions, and entry points for evidence resting in: national level bodies, sub-national (regional) level bodies, and local level bodies at times. In different country settings the various decision types listed above might be addressed at any of these three levels or may cut across more than one level. For instance, at the national level, the MoH usually functions as a decision point for certain types of decisions, but movements towards de-centralisation might lead to the shifting of decision-making from national/federal levels to sub-national or local levels (England is a case study of that). This permits consideration of whether systems of evidentiary advice are well aligned with the decision authority structures in a setting. There can also be important considerations on the ways that national evidence systems link to influential non-state decision makers (e.g. development partners in low and middle income settings, or corporate bodies granted authority for health policy decisions).

### 3.1 Legislature

The UK Parliament, develops the general policy direction for the NHS through primary legislation. It holds the Government and the NHS to account through a series of mechanisms such as parliamentary debates, select committees and direct questions from Members of Parliament (MPs), or health-related parliamentary groups, to ministers. The main select committees that are relevant for decision-making in relation to health policy are the House of Commons Health Select Committee (examining the policy, administration and expenditures of the Department of Health), the Public Accounts Committee, and the National Audit Office (both focusing on value-for-money criteria). The Public Administration Committee also reports on the NHS as part of its mandate to examine the quality and standards of the civil service (Boyle 2011; UK Parliament 2016b). Further, the Science and Technology Committee scrutinizes whether Government decisions are based on the best “scientific and engineering advice and evidence” (UK Parliament 2016b) and has played an influential role in the development of the English health research system (Hanney et al. 2010).

### 3.2 Department of Health

The Department of Health (DH) has overall responsibility for the NHS, public health and social care. The department is led by the Secretary of Health who is assisted by a minister of state for health, and three parliamentary under-secretaries for Public Health and Innovation, for Community Health and Care, and for Health. The senior management of the operational affairs of the DH includes a permanent secretary and several director generals, as well as the Chief Medical Officer mandated with providing scientific advice to the DH on public health and clinical quality. The DH and the Chief Medical Officer are supported by national clinical directors and advisory bodies with different areas of expertise (UK Government 2015).

Changes to the DH structure have been made frequently as part of larger reforms (the Health and Social Care Act, 2012), changes in government and cost saving exercises.

#### 3.2.1 Arm’s-length Bodies

The DH is supported by 26 agencies and public bodies. Of these, 15 are referred to as “arm’s-length bodies”, with different degrees of independence from government. The remaining bodies are advisory non-departmental public bodies, whose role is to assist the DH in “evaluating, investigating and supporting policy” and providing independent scientific expertise (Boyle 2011). However, the number and types of these bodies is changing almost continuously with different governments and ministers making changes to the organisational landscape of the health portfolio. Arm’s length bodies form a heterogeneous category, and play three main types of roles: regulation, establishment of national standards, and central/secretarial services (Boyle 2011). The need for reform of these arm’s length bodies (sometimes also referred to as ‘quangos’) has been highlighted, due to their general lack of consistency, coherence and transparency across government. Reform needs identified (including for NHS England) refer to developing a clear taxonomy and improving accountability mechanisms (Public Administration Select Committee 2015).

The DH is supported by two executive agencies: the Medicines and Healthcare products Regulatory Agency, responsible for regulating medicines, medical devices and blood components for transfusion, and Public Health England (PHE), developing public health and

health promotion policy. Established in 2013 by bringing together 70 separate bodies, PHE supports local authorities in promoting public health and reducing inequalities, by providing evidence-based and scientific expertise. It is also responsible for a number of national initiatives such as immunisation and screening programmes that are commissioned nationally.

Among the arm's length-bodies, NHS England (established in 2012 as the NHS Commissioning Board) is the main steering body of the NHS "providing national leadership for improving outcomes and driving up the quality of care" (NHS England 2014; King's Fund 2015). It also commissions a number of central services, such as highly specialised services and is responsible for central health programming. However, the bulk of commissioning health services is undertaken locally through Clinical Commissioning Groups.

The National Institute for Health and Care Excellence (NICE) is a non-departmental public body that provides national guidance and advice for health, public health and social care practitioners, as well as legally binding quality standards for the provision and the commissioning of these services. This includes the appraisal of new medical technologies using principles of cost-effectiveness (National Institute for Health and Care Excellence 2016).

Other non-departmental public bodies have responsibilities related to health system monitoring and regulation, including: the Care Quality Commission (responsible for regulating the quality of health and social care services), and NHS Improvement, which has recently brought together Monitor (the financial regulator of NHS providers), the NHS Trust Development Authority, Patient Safety, the National Reporting and Learning System, the Advancing Change Team and the Intensive Support Team (NHS Improvement 2016).

### 3.3 Local bodies

As mentioned above, the most recent major reform of the NHS included devolving responsibility for public health from the DH to the local authorities. Since the passing of the Health and Social Care Act in 2012, there have been ongoing changes to commissioning services in particular (which were aimed to be transferred to GPs or to local authorities), thus decreasing the influence and the responsibility of the Secretaries of State for Health and the DH. Therefore, commissioning and public health decisions are currently being taken at local levels.

#### 3.3.1 Clinical Commissioning Groups

The 2012 reformed abolished strategic health authorities and primary care trusts. Responsibility for service commissioning was mostly shifted to newly established clinical commissioning groups (CCGs), overseen by NHS England. CCGs are organised around GP practices in the area they cover, having been designed to be clinically led (Nuffield Trust, 2015). CCGs commission a broad range of services on behalf of their patients including mental health services, urgent and emergency care, elective hospital services, and community care. These can be provided by NHS providers or private or voluntary sector providers. There are currently 209 CCGs in England. CCGs are responsible for £71.9 billion in 2016/17, which approximates two third of the entire budget of NHS England (NHS Clinical Commissioners 2016).



### 3.3.2 Local authorities

With the 2012 reform public health policy became a responsibility of local authorities. Local authorities had held responsibility for public health in the past, although this had been moved to the NHS under previous governments. Public health activities at local level are supported nationally by Public Health England (King's Fund 2015). In addition to public health, local authorities are responsible for social care for children and adults, housing, local planning, consumer protection, police and fire, waste collection, libraries and education.

## 4 Entry points for research evidence

For research evidence to inform policy, it must have a conduit through which it can reach decision makers who might be usefully informed by it. There may be a wide range of structures and norms in place, both formal and informal, which, when taken together, form the evidence advisory system for health decision making. Taking as our starting point the stewardship role of Ministries of Health (and, by extension, national legislatures which govern ministries), we separate between

1. 'Formal systems' - taken here to represent the officially mandated agencies tasked with evidence synthesis and provision for decision making processes. These can be within national governments (for example, Ministry of Health Research Departments), Semi-autonomous bodies (such as the National Institute of Health and Care Excellence – NICE – in the UK), or independent agencies, so long as they have a formal mandate to provide evidence to inform policy; and
2. 'Informal systems' - representing the systems of evidence provision that are not dictated by any formal decree or rule to provide evidence, but which are found to play important roles in evidence provision.

Scientific evidence plays a pivotal role in the governance of the NHS and combined with the substantial volume in health systems, health services and health policy research produced in the UK (in addition to clinical research and basic sciences) this has led to the development of a culture of evidence use in which the NHS aims to become, a “consistent, evidence-based whole” (Shergold and Grant 2008) with substantial ‘absorptive capacity’ for the publicly and privately-funded health research (Hanney et al. 2010).

### 4.1 Formal Systems

#### *Parliament*

Oversight of the Department of Health by the Parliament is achieved through a number of mechanisms (oral/written questions, departmental question times, debates, scrutiny of Bills and select committee hearings). Both parliamentary inquiries and responses from the Government are expected to include evidence, although there is typically no formal requirement to draw on evidence. For example, Parliamentary committees’ reports include written and oral (e.g. presented by summoned witnesses) evidence. There are guidelines for “giving evidence<sup>1</sup>”,

<sup>1</sup> See <http://www.parliament.uk/documents/commons-committees/witnessguide.pdf>

but they do not refer to research evidence in particular, or make any stipulations to the sources and type of evidence that should be provided.

Prior to the 2012 NHS reforms, a report from the King's Fund suggested that Parliamentary accountability for the NHS reforms could be improved. This was seen as a way of forcing politicians to be transparent about their reasoning for proposed changes and to demonstrate how such proposals were supported by evidence (Dixon and Alvarez-Rosete 2008). In November 2014, the Public Administration Select Committee highlighted the need for a formal process of parliamentary scrutiny before major reforms, to protect against 'continuous structural reforms'. Furthermore, analyses of the 2012 healthcare reforms have highlighted the "unsystematic use of evidence and evaluation of earlier policies" (Rutter 2012).

Select committees such as the House of Commons Health Select Committee or the Public Accounts Committee play a key role in holding the government to account for its decisions, policies and reforms and they mostly do so by reviewing the facts that, in relation to health policy, often involve an assessment of the available evidence base. In its current session, the Health Select Committee has launched inquiries of 14 health policy topics which are as far ranging as the performance of maternity services, the finances of the NHS, the implications of the Brexit vote and planning for winter pressures in the NHS (UK Parliament 2016a).

The House of Lords can also be involved in challenging government policy and legislative proposals and it often does so by reference to evidence. It also plays an important role in developing science policy, through its Science and Technology Select Committee, whose members are typically selected for their academic merits (Hanney et al. 2010). Changes in science policy have led to changes in the allocation of public funds for (health) research, including increased support for health services research (Shergold and Grant 2008; Nutley, Davies, and Smith 2000).

### *Government*

In England, evidence production and utilisation are interdependent. Policy makers have sought to balance independent scientific research with needs-driven research (Shergold and Grant 2008). The current NHS R&D strategy, under the responsibility of the DH, includes efforts to identify needs and priorities for research, commission research (through the NHS, Department of Health, the Medical Research Council and other research councils, e.g., the Economic and Social Research Council-ESRC), but also synthesis of research (often through systematic reviews), dissemination and utilisation across the NHS (Hanney et al. 2010; NIHR 2015).

### *Department of Health*

The DH has a history of commissioning research on behalf of the NHS and of collaborating with the various government research bodies that fund clinical and other health related research. Following a comprehensive review of government funded research on health and health services (Cooksey Review), the National Institute of Health Research (NIHR) was created in 2006. Before the NIHR, patient-based research in the NHS was conducted through a range of funding schemes managed by the DH including the Cochrane Collaboration, the Centre For Reviews and Dissemination, the Health Technology Assessment programme and the Service and Delivery Organisation (National Institute of Health Research 2016). The NIHR has brought these dispersed initiatives together into one organisation to increase the volume of applied health

research in the UK and coordinate research efforts through a clearer set of priorities. Research funded by the NIHR aims at meeting the information needs of policy-makers, NHS managers, health service providers, patients and citizens. The NIHR is directed by the Senior Management Team of the Science, Research and Evidence Directorate at DH.

The NIHR runs a large number of research programmes including on health technology assessment, health service and delivery research, efficiency and mechanism evaluation, public health research, core funding for research schools in primary care, public health and social care research and commissioned/researcher-led calls related to research in prioritised area of care. Furthermore, the NIHR, through its Policy Research Programme, commissions research to meet the information needs of ministers and officials in the DH.

The NIHR has brought together a number of portals that provide access to research evidence across the health system, including: NHS Evidence, the University of York's Centre for Reviews and Dissemination, Cochrane UK, the NIHR Journal Library and the NIHR Dissemination Centre.

#### *Arms' length bodies & advisory non-departmental public bodies*

Arm's length bodies have an important role in research utilisation in the UK. Some of them are explicitly set up to make decisions using research findings (e.g. NICE) as scientific advisory bodies (e.g., Public Health England) and evidence synthesisers (Health and Social Care Information Centre).

For example, NICE uses research produced industry actors and commissions analysis from the NIHR HTA programme, which are then appraised and used to inform treatment coverage decisions and guidance for care (Hanney et al. 2010). Other arm's length bodies such as NHS England and Public Health England also make use of research funded by NIHR and others. However, on several occasions, the evidence used and guidance produced by PHE have attracted substantial criticism and have undergone intense scrutiny from researchers, policy advocates and others (Buck 2014).

#### *Commissioning & Public Health Decision-making*

Evidence use to inform clinical and commissioning decisions is expected in the NHS. However, this is often fraught with difficulty in practice as local decision-making typically responds to many pressures and competing priorities, often in the absence of a firm evidence base on which decisions could be based. Also, nationally produced evidence is not always relevant to local problems with local decision-makers having less capacity to undertake or commission their own local studies. There are a number of initiatives that aim to address the challenge of making such as the Diagnostic Evidence Co-operatives (DECs), the Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) or the Academic Health Science Networks. However, local service commissioning in particular has been identified as an area in which evidence (such as clinical guidelines and cost effectiveness analyses) often seen as less relevant to decision-making than expected. In a 2010/11 survey of local commissioners in the NHS (then in PCTs) about 50 % noted that clinical guidelines and cost effectiveness analysis were important for health care decisions, with those trained in public health more likely to use evidence than others (Clarke et al., 2013)

## 4.2 Informal systems

Policy advice can come under more or less clearly established standards. NICE, for example, has a clear mandate and methodologies for assessing and appraising evidence (starting from a prioritization process). Other sources of policy advice that present evidence have a less explicit process of evidence production and utilisation. The UK is a leading market for and of think tanks, which have not only increased in influence in the UK, but also internationally. However, little is known about how such think tanks prioritize topics, fund their research (and the methodologies employed), or influence health policy-making. Research into their roles and biases in health policy-making is needed (Shaw et al. 2014)

## 5 Discussion

The English NHS can be considered as being at the forefront of embedding evidence in the health system, partly through creating an increasingly coherent national research system. Such a strategy included the creation of receptor organizations in the NHS, that can broker the evidence produced by research units housed by the NHS, universities or charities. Linking health research with health service delivery has been attempted several times in the English NHS.

Several authors have identified that linking evidence production and utilisation with health service delivery has both been a strength and a weakness of the health research system in the UK. On the one hand, clearly defined entry points might increase the chance for utilisation of evidence. On the other, frequent structural reforms of the NHS often cause need for restructuring in evidence production and use (Hanney et al. 2010). To this date, it is unclear whether evidence use at local level can fit with the often central evidence “receptors”, from policy-makers to arm’s length bodies to the DH. The question is, then, to what extent do local decision-making and the (considerable influence of) NHS England and other arm’s length bodies align?

An example of potential mis-alignment comes from NICE and the need for priority setting (i.e., rationing in the NHS). While NICE is involved in coverage decisions for single technologies, commissioning at the local level, where resources are notoriously scarce, means that some technologies either will be provided at the detriment of other patients and the system, or an implicit process of priority-setting takes place, despite the rigorous evidence-base for central decisions by NICE (Williams 2013). However, this example perhaps illustrates the limits of an evidence based approach to decision making, as stringent rationing of health services is unlikely to be acceptable to those affected by it irrespective of such decisions being based on evidence.

The current reforms are challenging to cover due to their sheer size. As it happened in the past, they are expected to influence the infrastructure for evidence production and utilisation. While the links are clearly there, and the expectation that the health system be “evidence-based” is a matter of fact, entry points for evidence used in the new NHS at local level seem to lack in clarity.

## 6 References

- Alliance for Health Policy and Systems Research, and WHO. 2007. *Sound choices: enhancing capacity for evidence-informed health policy*. Geneva: World Health Organization.
- Alvarez-Rosette, Arturo, Ben Hawkins, and Justin Parkhurst. 2013. *Health System Stewardship and Evidence Informed Health Policy*. London: GRIP-Health Programme, London School of Hygiene and Tropical Medicine.
- Bevan, Gwyn, Marina Karanikolos, Jo Exley, Ellen Nolte, Sheelah Connolly, and Nicholas Mays. 2014. "The Four Health Systems of the United Kingdom: How Do They Compare?" [http://www.nuffieldtrust.org.uk/sites/files/nuffield/revised\\_4\\_countries\\_report.pdf](http://www.nuffieldtrust.org.uk/sites/files/nuffield/revised_4_countries_report.pdf).
- Boyle, Seán. 2011. "United Kingdom (England) Health System Review." In *Health Systems in Transition*. World Health Organization. <http://www.euro.who.int/en/about-us/partners/observatory/publications/health-system-reviews-hits/countries-and-subregions/england-hit-2011>.
- British Monarchy. 2015. "The Role of the Monarchy." Accessed April 2015. <http://www.royal.gov.uk/MonarchUK/HowtheMonarchyworks/HowtheMonarchyworks.aspx>.
- Buck, David. 2014. "Public Health England: Speaking up and Speaking Truth to Power?" London: King's Fund.
- Davies, Huw, and Sandra Nutley. 2000. *Healthcare: Evidence to the Fore*. Edited by Huw T.O. Davies, Sandra M. Nutley, and Peter C. Smith. *What Works. Evidence-Based Policy and Practice in Public Services*. Bristol: Policy Press.
- Department of Health. 2012. "Health and Social Care Act 2012: Fact Sheets." Accessed April 2015 <https://www.gov.uk/government/publications/health-and-social-care-act-2012-fact-sheets>.
- Dixon, Anna, and Arturo Alvarez-Rosete. 2008. "Governing the NHS: Alternatives to an Independent Board." London: King's Fund.
- Hanney, Stephen, Shyama Kuruvilla, Bryony Soper, and Nicholas Mays. 2010. "Who Needs What from a National Health Research System: Lessons from Reforms to the English Department of Health's R&D System." *Health Research Policy and Systems / BioMed Central* 8 (1). BioMed Central Ltd: 11. doi:10.1186/1478-4505-8-11.
- Hogwood, B. W., and L. A. Gunn. 1984. *Policy analysis for the real world*. Oxford: Oxford University Press
- Jeffery, Charlie. 2007. "Devolution: A Decade On." Accessed April 2015. <http://www.publications.parliament.uk/pa/cm200809/cmselect/cmjust/529/529we14.htm#note27>.
- King's Fund. 2015. "An Alternative Guide to the New NHS in England." Accessed April 2015 <http://www.kingsfund.org.uk/projects/nhs-65/alternative-guide-new-nhs-england>.
- Lowndes, Vivien, and M Roberts. 2013. *Why institutions matter*. Basingstoke: Palgrave.
- Mulgan, Geoff, and Ruth Puttick. 2013. "Making Evidence Useful: The Case for New Institutions." London: Alliance For Useful Research
- National Institute for Health and Care Excellence. 2016. "What We Do." Accessed Nov 2016

<https://www.nice.org.uk/about/what-we-do>

National Institute of Health Research. 2016. "NIHR Today." Accessed Nov 2016  
<http://www.nihr.ac.uk/about-us/nihr-today/>.

NHS Clinical Commissioners. 2016. "About CCGs." Accessed Nov 2016  
<http://www.nhscc.org/ccgs/>.

NHS England. 2014. "Understanding the New NHS. A Guide for Everyone Working and Training within the NHS." Accessed April 2015 <https://www.england.nhs.uk/wp-content/uploads/2014/06/simple-nhs-guide.pdf>.

NHS Improvement. 2016. "NHS Improvement: Who We Are." Accessed Nov 2016  
<https://improvement.nhs.uk/about-us/who-we-are/>.

NIHR. 2015. "NIHR Funding for Research." *National Institute for Health Research (NIHR)*. Accessed Nov 2016 <http://www.nihr.ac.uk/funding/funding-for-research.htm>.

Nuffield Trust. 2015. "The Coalition Government's Health and Social Care Reforms: 2010 - 2015." 2015. Accessed April 2015 <http://www.nuffieldtrust.org.uk/our-work/projects/coalition-governments-health-and-social-care-reforms>.

Nutley, Sandra, Huw Davies, and P C Smith. 2000. *What Works?: Evidence-Based Policy and Practice in Public Services*. Bristol: Policy Press.

Nutley, Sandra, and Jeff Webb. 2000. "Evidence and the Policy Process." In *What Works?: Evidence-Based Policy and Practice in Public Services*. Ed.s. Nutley, Sandra, Huw Davies, and P C Smith. Bristol: Policy Press. pp 13–41.

Office for National Statistics. 2013. "Population Estimates." Accessed April 2015  
<http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Estimates>.

Office for National Statistics. 2014. "Gross Domestic Product Preliminary Estimate, Q1 2014." <http://www.ons.gov.uk/ons/rel/gva/gross-domestic-product--preliminary-estimate/q1-2014/stb-gdp-preliminary-estimate--q1-2014.html>.

Public Administration Select Committee. 2015. "Who's Accountable? Relationships between Government and Arm's-Length Bodies: Government Response to the Committee's First Report of Session 2014-15." *UK Parliament*.  
<http://www.publications.parliament.uk/pa/cm201415/cmselect/cmpublicadm/1129/112902.htm>.

Rutter, Jill. 2012. "Learning the Lessons from 'Never Again?'" London: Institute for Government.  
<http://www.instituteforgovernment.org.uk/publications/learning-lessons-never-again>.

Shaw, S E, J Russell, T Greenhalgh, and M Korica. 2014. "Thinking about Think Tanks in Health Care: A Call for a New Research Agenda." Journal Article. *Sociol Health Illn* 36 (3): 447–61. doi:10.1111/1467-9566.12071.

Shergold, Miriam, and Jonathan Grant. 2008. "Freedom and Need: The Evolution of Public Strategy for Biomedical and Health Research in England." Journal Article. *Health Research Policy and Systems / BioMed Central* 6. England: 2. doi:10.1186/1478-4505-6-2.

UK Government. 2014. *The Implications of Devolution for England. Presented to Parliament by the First Secretary of State and Leader of the House of Commons by Command of Her Majesty*. UK Parliament.

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/387598/implications\\_of\\_devolution\\_for\\_england\\_accessible.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387598/implications_of_devolution_for_england_accessible.pdf).

Uk Government. 2015. "Department of Health." *UK Government*. Accessed April 2015  
<https://www.gov.uk/government/organisations/department-of-health>.

UK Parliament. 2015. "How Parliament Works." Accessed April 2015.  
<http://www.parliament.uk/about/how/>.

UK Parliament 2016a. "Health Committee." Accessed Sept 2016  
<http://www.parliament.uk/healthcom>.

UK Parliament. 2016b. "How Parliament Works - Committees." Accessed Nov 2016  
<http://www.parliament.uk/about/how/committees/>.

Williams, Iestyn. 2013. "Institutions, Cost-Effectiveness Analysis and Healthcare Rationing: The Example of Healthcare Coverage in the English National Health Service." *JOUR. Policy & Politics* 41 (2). Policy Press: 223–39.

World Bank. 2016. "GDP per Capita (Current US\$) | Data." Accessed November 4.  
<http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.

World Health Organization. 2000. *The world health report 2000, health systems: improving performance*. Geneva: The World Health Organization.

