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Voluntary registers: why and how should they be accredited?

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The Centre for Health Service Economics and Organisation (CHSEO) is an independent research unit embedded within the University of Oxford. Established in December 2010, it aims to bring together academics and civil servants (on secondment) in an innovative way, to address the key health policy issues of the day.

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Executive Summary

Chapter 1. Introduction

State registration of the medical profession in the UK can be traced back as far as 1858. Since then, the number of health and social care professions brought within the scope of statutory regulation and the associated number of statutory bodies has grown. Today, such regulation applies to approximately 1.5 million health and social care professionals, but there are a further 2.5 million workers who remain outside the scope of statutory regulation.

The government does not believe that the extension of statutory regulation to all workers in the health sector in the UK and the social care sector in England would be a proportionate response to the prevailing risks or to general concerns about the quality of care.

It has instead proposed a system of central assurance (or accreditation) of voluntary registers of health and social care workers (not already covered by the scope of a statutory register). The purpose of this report is to inform the design of such a system by drawing upon the available economics literature in this area.

Chapter 2. The unregulated health and social care workforce: the numbers

In order to understand the appropriateness of voluntary registration to the approximately 2.5 million health and social care workers not statutorily professionally regulated, the size and nature of this part of the workforce is examined. Important considerations include the contracting relationships between staff and end-users and the existing interventions or mechanisms that already act on this part of the workforce.

Chapter 3. Statutory registers, voluntary registers and market-based quality signals: the theory

The market for health and social care staff – whether contracted directly by patients/end-users or indirectly through intermediaries such as employing/commissioning organisations (e.g. hospitals, CCGs) – is, to varying degrees, characterised by certain market failures relating to:

- the imbalance in information about quality of care between the supplier of the care and the purchaser or recipient of care – i.e. individual workers know more about their skills and abilities (and therefore the quality of their service) than patients or employers *(informational asymmetry)*;
- an inability or incapacity of individuals to determine their best long run interests *(a need for paternalistic intervention)*; and
- the negative impact that individuals' decisions regarding healthcare can have on others *(negative externalities)*.

In general, statutory registers are more effective at addressing the full range of these market failures but they are likely to impose the highest costs. Market based mechanisms, such as building brand awareness and reputation, can help address certain information imbalances, but generally only where quality can be judged by consumers after the event. Voluntary registers are likely to be the most cost-effective means of addressing informational asymmetry and, when combined with public policies encouraging their use, may help address the other market failures.

Chapter 4. Voluntary registers: which occupational groups

The value to consumers of effective voluntary registers being established for different occupational groups is likely to vary depending on:

- whether workers come into direct contact with patients – i.e. whether they are 'front-line' staff;
- the type of service being provided – in particular, whether it can be characterised as 'one-off experience' or 'credence';
- the vulnerability of the consumer, which may limit their ability to judge the quality of 'experience' goods even after the event; and
- the presence (or absence) of other safeguards and quality assuring mechanisms.

In addition, the enthusiasm of different occupational groups to establish voluntary registers will vary, depending on such factors as the size and coherence of the group.

Chapter 5. Voluntary registers: how should they be accredited?

Interpretation of the literature on voluntary registers suggests that effective registers should:

- measure or judge the quality of workers and ensure a separation between high and low quality workers;
- determine the methods of measuring quality, depending upon the particular staff group in question;
- decide how much information on staff quality the register will disclose to consumers;
- determine criteria for entry onto the register – i.e. set the threshold level(s) of quality;
- set an appropriate registration fee;
- give due regard to the register's rate of take-up; and
- determine exit criteria, decide on the extent of information to be conveyed about 'exited' workers and ensure that workers do not erroneously claim to be registered.

These conditions for an effective voluntary register form the standards against which a body may wish to accredit voluntary registers – that is, to signal to consumers that they are effective. In addition to assessing individual registers against these standards, an accrediting body will also wish to:

- decide its stance on the supply of voluntary registers – i.e. if it believes that those registers likely to be of most value to consumers are not forthcoming;
- ensure that there is genuine public demand for a register;
- consider and monitor the cost-effectiveness of voluntary registers; and
- be aware of the issues relating to monopoly or competition amongst registers.

Chapter 6. Concluding remarks

Some of the debate about voluntary registers (and their proposed accreditation) has been about risk and public protection, but voluntary registers can only really address this where they are used alongside public policies aimed at encouraging the use of registered workers. Comparing the issues and themes discussed in this report with emerging proposals for how a process of Assured Voluntary Registration is designed to operate, there is a considerable degree of correspondence. However, there are some additional points that CHRE may wish to consider before the accreditation scheme launches in 2013.

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1. Introduction

1.1. CHSEO's research brief

In the 2011 Command Paper – "Enabling excellence: Autonomy and accountability for healthcare workers, social workers and social care workers" – a system of Assured Voluntary Registration (AVR) was proposed for unregulated health and social care workers. It was argued that Assured Voluntary Registration would give the public and local employers greater control and responsibility for how they assure themselves about the quality of staff, within the overall matrix of assurance mechanisms. Assured Voluntary Registration was also considered a more proportionate way of balancing the Government's desire to drive up the quality of the workforce with its intention to avoid introducing regulation and its associated costs, where possible.

Box 1. What is meant by the term 'Assured Voluntary Registration'?

Registration of staff is one means through which the quality (i.e. the skills, experience and conduct) of staff can be regulated. In the context of health and social care practitioners working in the UK, registration can take two forms: a) statutory registers require practitioners to register with a state-appointed regulatory body as a condition of practise; whereas b) voluntary registers, as the name suggests, provide a means through which practitioners can choose to join a register. Both types of register set conditions for entry to and exit from the register. In the case of statutory registers, removal of an individual from the register is a tougher sanction than in the case of voluntary registers because the individual is no longer permitted to practise.

These forms of occupational regulation are described in more detail, alongside other mechanisms, in Chapter 3 of this report.

The term '*Assured* Voluntary Registration' has generated a degree of confusion, particularly when encountered for the first time. To ensure clarity of description in this report, an explanation of what is meant by the term is given here.

The confusion arises because it is not obvious from the title *what or who* is being 'assured' – voluntary registers or somebody else. It is clear from the policy intention that it is consumers of practitioner services who are being assured – i.e. they are being given assurance that a particular voluntary register meets certain standards of quality. The process by which organisations are recognised for their competence in certification (or voluntary registration) is more formally referred to as *accreditation*. For the purpose of this report we therefore use the terms *accredited voluntary registers* and *accrediting body* as far as possible.

The Health and Social Care Act 2012 provides the powers to enable a system of accredited voluntary registers. The Act empowers the Professional Standards Authority for Health and Social Care (currently the Council for Healthcare Regulatory Excellence) to accredit voluntary registers. Whilst the Health and Social Care Act 2012 provides the powers to enable such a system and requires that the Professional Standards Authority undertake, and give regard to, an impact assessment and consult before accrediting a

register, there are a number of aspects relating to the accreditation of voluntary registers that have not yet been specified and which will be for the Professional Standards Authority, as the accrediting body, to consider. In particular, an accrediting body may wish to consider:

- whether a particular occupational group is suitable for a voluntary registration process – and therefore whether such a register should be accredited;
- its stance in relation to the demand for and supply of voluntary registers; and
- how the accreditation of a voluntary register should be undertaken.

CHSEO's research brief is to draw upon relevant economic theory in order to assist an accrediting body in considering the above questions.

There may be aspects of the design of a system of accredited voluntary registers that are not addressed by the economics literature, simply because they are not amenable to such analysis. Therefore, this report is not intended to be a definitive guide to implementation incorporating firm recommendations for action. Rather, the purpose of the report is to provide insight from the available economic theory and evidence in order to provide structure that can be used to aid thinking in this area.

1.2. Methodology

In order to provide insight or guidance around specific questions relating to the *accreditation* aspect of a system of accredited voluntary registers, it is necessary to build up some preliminary steps of analysis. These steps involve setting out the size and nature of the unregulated health and social care workforce in the UK, describing the role of a voluntary register as a quality signalling tool, and an analysis of what a voluntary register can and cannot achieve in the context of alternative interventions and mechanisms, in particular statutory registration and market-based quality signals. These steps will set the context and groundwork for thinking about how the process of *accreditation* of voluntary registers might work best.

Since this report draws significantly on the economic literature relating to voluntary registers, and occupational regulation more generally, it is interesting to note that Kleiner (2000) highlights that, despite the large and increasing share of jobs that are covered by occupational regulation, the amount of research carried out by labour economists in this area has been small compared to research in other areas such as on the subject of trade unions. Therefore, it should be noted that, whilst there *is* a body of literature around occupational regulation and related interventions, it is perhaps arguably not as rich as that for other areas studied within the discipline of labour economics.

Chapter 2 starts by briefly defining statutory registration and voluntary registration. It then focusses on providing an empirical analysis of the size and nature of the health and social care workforce along with an overview of the extent to which statutory registers and voluntary registers currently operate across the sector. It also provides, for context, an overview of other risk-safeguarding and quality-assuring mechanisms that operate in the sector. This chapter draws upon a variety of data sources and available information relating to the health and social care workforce. It provides the context for the analysis presented in the chapters that follow.

Chapter 3 focusses on the economic theory around statutory registration, voluntary registration and market-based quality signalling mechanisms in order to be clear on what voluntary registration can and cannot achieve. The chapter describes the market

failures that can arise in the provision of services within health and social care and how statutory registration, voluntary registration and market-based mechanisms can address these market failures. This chapter draws heavily from the available economic literature on occupational regulation and related interventions.

Chapter 4 uses the theory discussed in Chapter 3 to consider which unregulated occupational groups within health and social care may benefit from a process of voluntary registration.

Chapter 5 considers what an accrediting body should do in order to ensure that a system of voluntary registers is effective and maximises social welfare.

Chapter 6 closes by making some concluding remarks.

2. The unregulated health and social care workforce: empirical analysis

In this chapter, we briefly define statutory registers and voluntary registers. We then examine the size and nature of both the regulated and unregulated health and social care workforces in the UK and the extent to which statutory registers and voluntary registers already operate. An overview of other risk safeguards and quality assurance mechanisms that operate in the sector is also presented in order to provide context. This analysis will set the context and groundwork for understanding why and how a system of accredited voluntary registers may operate within this sector.

Statutory registration of workers (referred to as *licensing* in the economics literature) is defined as a process where entry into an occupation requires the permission of the government, and the state requires some demonstration of a minimum degree of competency (Kleiner, 2000).

Voluntary registration of workers (referred to as *certification* in the economics literature) is an intervention by which professionals or workers that meet certain standards can be identified but which does not restrict the practice of others. As such, voluntary registration is a process that can be thought of as providing a *quality signal* to allow higher quality workers to distinguish themselves from lower quality workers.

2.1. A map of the regulated and unregulated health and social care workforce

Figure 2A overleaf (which covers two pages) provides a map of the current regulated and unregulated health and social care workforce in the UK. The map provides a visual representation of the estimated size of the unregulated health and social care workforce compared to the regulated workforce, and shows the sizes of the key workforce groups that constitute each total. The area of each rectangle is representative of the size of a particular workforce group. A comparison of the sizes of the regulated and unregulated workforces may be of assistance in gauging the potential scale of the task of accrediting voluntary registers that might potentially cover significant parts of the unregulated workforce.

The map covers the healthcare workforce in the *UK* and the social care workforce in *England* providing social care services for *adults.* The healthcare workforce is represented by the orange regions on the left-hand side of the map with the social care workforce represented by the green regions on the right-hand side. The shaded regions (at the top of the map) represent the regulated workforce and the regions that are not shaded represent the unregulated workforce. Annex A provides a description of the methodology and data sources used to produce the map.

Whilst the aim of the map is to assist with the characterisation of the key unregulated workforce groups and whether or not voluntary registration might be an appropriate intervention for them (see Chapter 4), there are some key messages that we can extract at this stage:

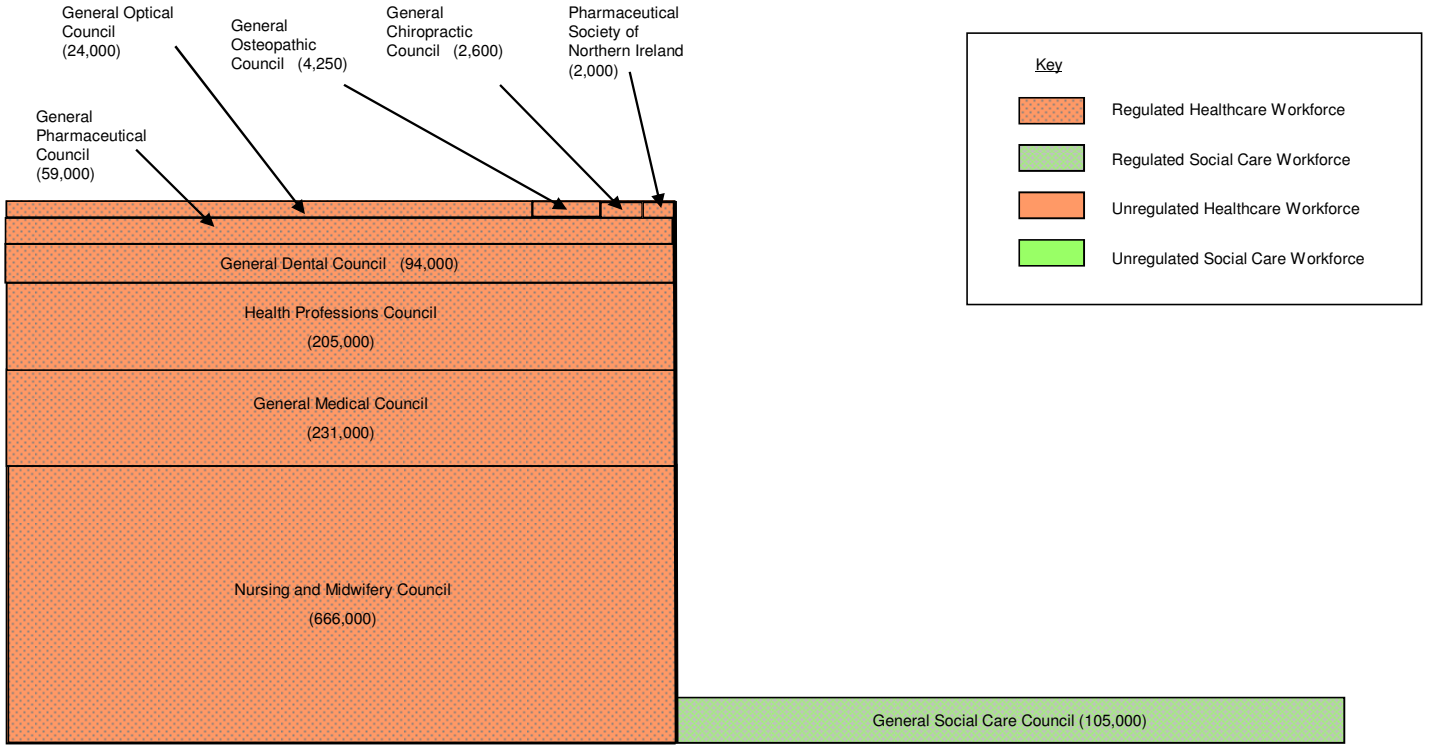
- Our estimate of the total size of the unregulated health and social care workforce is approximately 2.5 million (approximately 1 million within UK healthcare, and 1.5 million within (adult) social care in England). It is informative to view this in the context of the regulated workforce of approximately 1.4 million.

- Regulated workers constitute a small majority of the healthcare workforce (with approximately 57% of the workforce regulated), whereas the social care workforce is dominated by unregulated workers (94% unregulated)[1].
- The largest occupational group within the unregulated healthcare workforce is 'administrative' workers with the second largest group comprising nursing and midwifery 'assistants'.
- By far the largest occupational group within the unregulated social care workforce is 'direct care and support workers'.

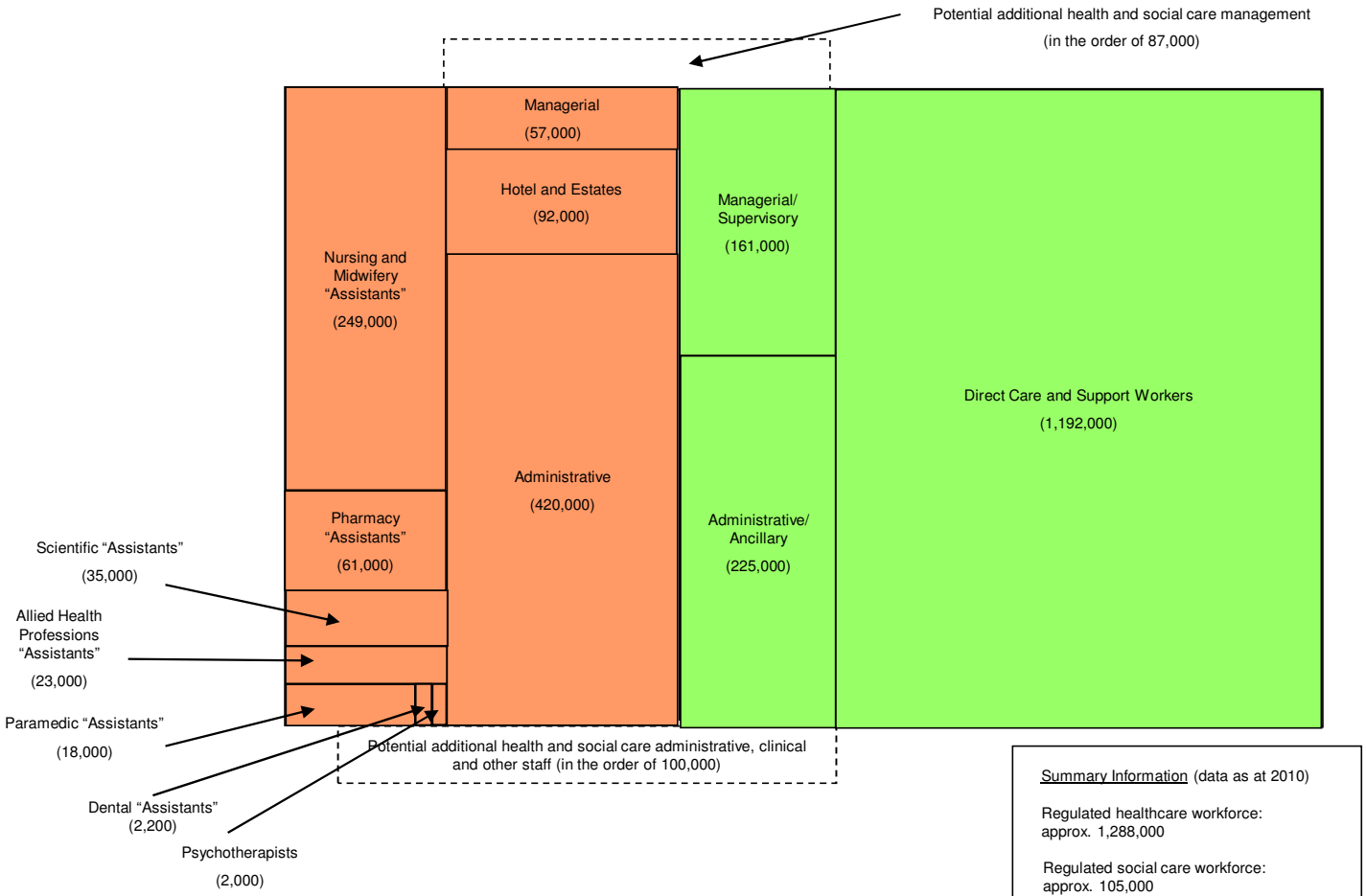
[1] Whilst registered care homes require a certain proportion of staff to have minimum qualifications, this regulation acts on the organisation as a whole rather than directly on the individuals employed within it.

Figure 2A: Map of the health care workforce in the UK and the social care workforce in England

Part 1: Regulated Health (UK) and Social Care (England) workforce



Part 2: Unregulated Health (UK) and Social Care (England) workforce



Sources: See Annex A
Please note: most of the staff shaded in orange (about 96%) are employed in the NHS, the exception being dental receptionists and dental practice managers. There may be additional staff employed in clinical, administrative and other roles working outside the NHS, but it is not possible to group these additional staff by occupation.

Summary Information (data as at 2010)

Regulated healthcare workforce: approx. 1,288,000

Regulated social care workforce: approx. 105,000

Unregulated healthcare workforce: approx. 958,000

Unregulated social care workforce: approx. 1,577,000

Potential additional unregulated health and social care workforce: 187,000

2.2. Overview of existing statutory and voluntary registers

2.2.1. Existing statutory registers

There are currently ten statutory regulators of health care professionals in the UK and of social care professionals in England (see Annex B), covering 35 professions or occupations. Each of these regulators is (or will shortly be) overseen by the Council for Healthcare Regulatory Excellence (soon to be renamed the Professional Standards Authority). Each regulatory body charges a registration fee to practitioners and these fees vary from £76 per year (Health Professions Council) to £1,000 per year (General Chiropractic Council)[2].

2.2.2. Existing voluntary registers

The precise number of existing voluntary registers operating in the UK health and social care workforce is unclear. However, an internet search has revealed 36 registers (see Annex C). By cross-referencing this list with the map of the unregulated workforce (Figure 2A), it can be seen that the existing voluntary registers appear to operate within a limited region of the unregulated workforce. Indeed, the majority of the existing voluntary registers operate in the area of psychotherapy, therapy or counselling (33%), scientific (19%), and complementary, alternative or natural medicine (19%). Our search did not identify any voluntary registers that cover nursing and midwifery 'assistants', pharmacy 'assistants', paramedic 'assistants' nor any part of the social care workforce. It therefore appears that, to date, voluntary registers operate within niche parts of the unregulated workforce rather than across the larger workforce groups.

2.3. Other risk safeguards and quality assurance mechanisms

If a system of accredited voluntary registers were introduced into the unregulated workforce, it would not operate in isolation. There are a number of existing interventions or mechanisms already in place that operate either to:

- mitigate risk (i.e. act as a risk safeguard); or
- act as a quality signalling mechanism

and operate at either the:

- individual;
- team; or
- organisational level.

It should be noted that whilst risk has more to do with minimum protection against harm, and quality signalling is more commonly used to discriminate at higher (and less universally preferred) levels, it is hard in practice to view these concepts as entirely mutually exclusive; there is likely to be some degree of overlap.

In order to understand the role that a system of accredited voluntary registers might play, it is necessary to view such an intervention in the context of other existing interventions and mechanisms. To enable this, Figure 2B presents a summary of current interventions and mechanisms, each one mapped against the extent to which it can be considered a risk safeguard or a quality signalling mechanism (vertical axis) and whether the intervention operates at the individual, team or organisational level

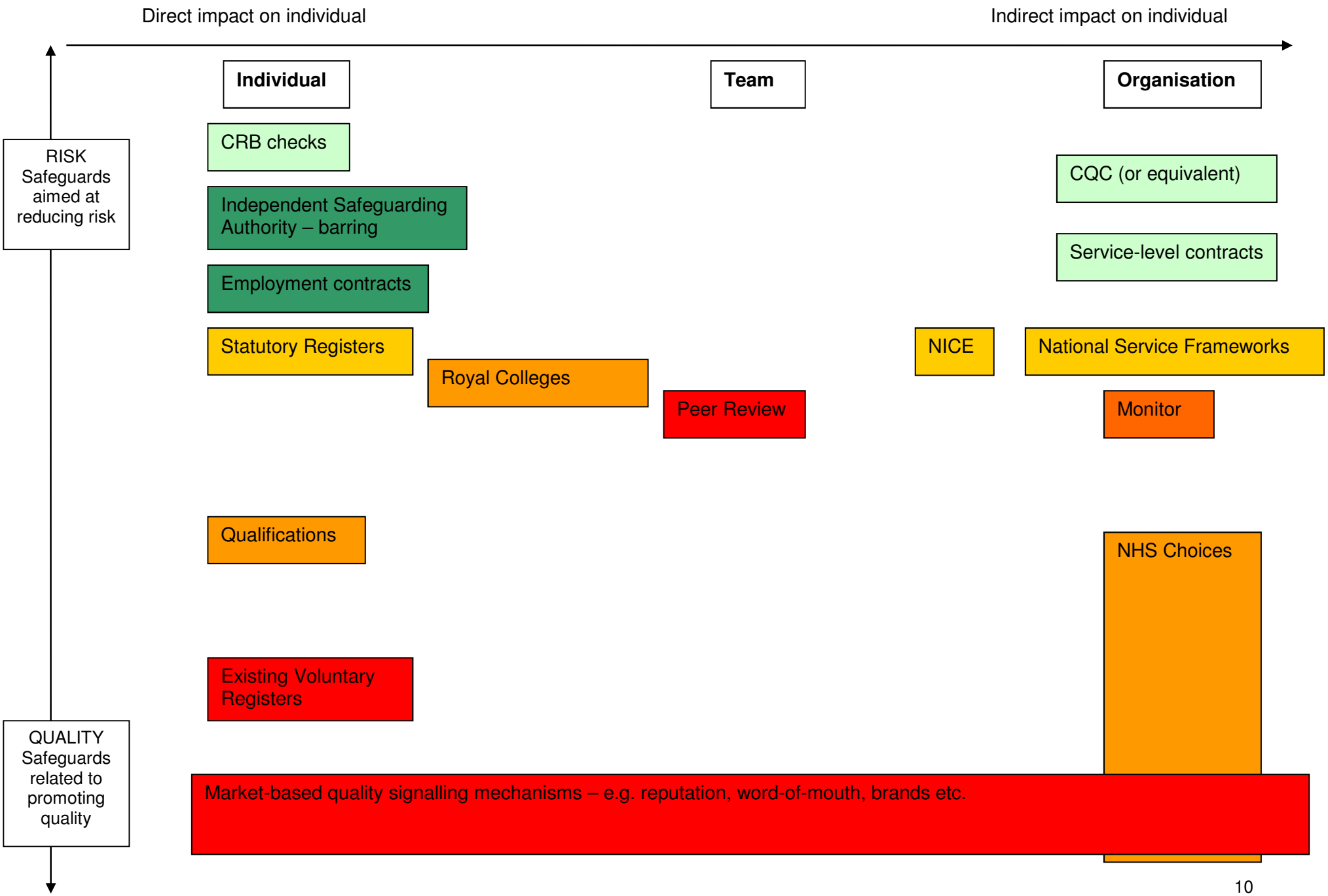
[2] Fees for renewal of registration, as at November 2011.

(horizontal axis). Clearly, however, for a special class of workers – those who are self-employed – there is no distinction between the individual and the organisation.

The colour-coding represents the comprehensiveness of the measure in question, with green representing a measure that applies to a significant proportion of individuals or organisations, red representing a limited comprehensiveness and amber being somewhere between the two. Comprehensiveness may capture the intended scope of the measure and/or something about its effective scope – e.g. reflecting the take-up of a voluntary measure.

Figure 2B is conceptual. Given the complexity of the regulatory system it is not feasible for all measures to be mapped. Additionally, since the positioning of the measures on the chart is, to some degree, a subjective exercise, there may be debate around their precise position. However, the figure does indicate that there seems to be an absence of quality signalling measures acting directly on individual workers. Whether or not the absence of measures in this area provides sufficient motive for action, it is nevertheless interesting to note that this is where a system of accredited voluntary registers would naturally be placed within the regulatory landscape.

Figure 2B: overview of existing risk safeguards and quality signalling mechanisms in the health and social care sector



3. Statutory registers, voluntary registers and market-based quality signals: theory

3.1. Introduction

This chapter focuses on the market failures present in health and social care services and describes the various interventions available – including voluntary registration – to correct these failures. The chapter starts by introducing the concept of social welfare (Section 3.2). Section 3.3 summarises the various market failures that may be present in health and social care services, which can lead to sub-optimal social welfare. Finally, Section 3.4 describes and compares various interventions – statutory registration, voluntary registration and market-based mechanisms – that may be deployed to reduce the effects of the market failures present, and thereby improve social welfare. Whilst the focus of this chapter is to explore the effects of voluntary registration, it is necessary to view this intervention within the context of other interventions.

3.2. Social welfare

The 2011 Command Paper, "Enabling Excellence – Autonomy and accountability for healthcare workers, social workers and social care workers", proposes a system of assured (or accredited) voluntary registers, to provide a more proportionate means of balancing the desire to raise the quality of the unregulated health and social care workforce but avoiding the costs associated with the introduction and operation of statutory regulation[3].

While not explicitly stated in the Command Paper, it is important to note that raising the quality of the unregulated workforce and avoiding excessive regulation are means to an end rather than the end itself. As always, government action in this, as in any other area, is motivated by the desire to improve (or maximise) social welfare. Social welfare can be viewed as the aggregate welfare of all members of a society.

The extent to which improvements in social welfare, in this instance, are delivered through an improvement in the quality of the unregulated workforce will depend upon: a) the relative distribution in preferences for quality amongst consumers and workers; and b) the costs and benefits of a given quality improvement, on the part of consumers, workers and any other affected sector of society (e.g. taxpayers).

To illustrate, suppose there is an improvement in the quality of unregulated workers, accompanied by no change in the price of services offered. This would benefit consumers in terms of a higher quality of care but would represent a cost to those workers who have invested in improving their quality. In this example, improving the quality of the workforce does not necessarily lead to an improvement in social welfare – because the benefit to consumers may be outweighed by the costs to workers. In judging the impact on social welfare, the important consideration is the relative size of the benefits to consumers and the costs to workers, rather than evidence of improvement in the quality of workers *per se*.

[3] Paragraph 4.4, p. 16

Box 2: Who are the 'consumers' of voluntary registers in the health and social care sector?

It is important to define what is meant by the term 'consumer'. In health and social care, the principal decision-maker or contractor is often not the end-user of the good or service being provided by the health and social care workforce. Patients often have agents – for example GPs, or employing organisations – who make decisions on their behalf about the competency and quality of workers engaged in their care. Any intervention, therefore, aimed at more effectively matching consumers (with varying quality preferences) to practitioners or workers (with varying quality attributes), such as the establishment of voluntary registers, will need to recognise the possibility of a more indirect contracting relationship between provider and end-user than assumed in conventional consumer theory.

Therefore, where 'consumers' of voluntary registers of health and social care staff are referred to in this report, this may relate either to patients or those acting on their behalf – e.g. carers, service-providing employers, or commissioners.

In the discipline known as *welfare economics*, the market mechanism – with the supply and demand of goods and services determining the price and quantity of goods and services sold – is seen as one way of achieving an allocation of resources that maximises social welfare. However, in markets that are not perfectly competitive, an unregulated market may lead to sub-optimal social welfare due to the presence of particular market failures.

3.3. Market failures associated with the provision of services

This section describes three market failures that commonly occur in many (though not all) markets for services in the health and social care sector: (i) informational asymmetry on quality; (ii) 'paternalism' or 'society knows best'; and (iii) negative externalities. Where these market failures occur, it is likely that they will result in sub-optimal social welfare in the market. Each of these market failures are considered in turn within this section.

3.3.1. Informational asymmetry on quality

3.3.1.1. The Search-Experience-Credence (SEC) framework

A consumer's evaluation of the quality of a service (or product) will depend on whether and when the consumer can verify information regarding the quality of the service. There is often informational asymmetry present between a worker and consumer regarding the quality of service (i.e. the worker knows more about the quality of their service than the consumer does). Services may exhibit search, experience or credence attributes depending upon the nature of the informational asymmetry present[4]. This concept is sometimes referred to as the Search-Experience-Credence (SEC) framework, which defines services (or products) as follows:

[4] The distinction between search goods and experience goods was suggested by Nelson (1970). Darby and Karni (1973) describe credence goods.

- A *search* service is defined as a service where the consumer can determine the quality by inspection prior to purchase or consumption.
- An *experience* service is defined as a service where the consumer does not have the ability or expertise to assess quality prior to consumption, but is, however, able to assess the quality of the service after the event. For example, a consumer may not know the qualifications or experience of a worker and/or how well those qualifications or experience translate into quality of service, but is able to observe the quality of the service after consumption.
- A *credence* service is defined as a service where the consumer cannot verify the quality either before or after it is consumed (or can only verify the quality when it is too late to matter).

In health and social care, there are few services that can obviously be classified as search services and as such, most services fall into the 'experience' or 'credence' categories. Furthermore, services often cannot be classified neatly as either 'experience' or 'credence' and very often exhibit attributes of each. In practice, therefore, the framework can be used to determine the *extent* to which a service may be considered an experience or credence service.

The characteristics of the consumer can also have a bearing on the classification of a service within the search-experience-credence framework. Where a consumer is vulnerable or less competent they may experience greater difficulty in assessing the quality of a service than other more competent consumers. For example, a cleaning service may generally be considered an experience service since generally consumers are able to assess the quality of service after consumption. However, such a service may be considered more of a credence service for a consumer constrained by limited vision.

The extent to which a service is a *one-off* or a *repeat-purchase* service can also play a part in the consumer's ability to assess quality. In circumstances where a consumer repeatedly purchases an experience service, consumers are able to build up knowledge of a particular worker's quality. This reduces the failures associated with asymmetrical information in the medium to long-term since it provides an incentive for workers to provide a high quality service. However, this effect does not occur with credence services, since repeat purchase is of no benefit if consumers are not able to assess quality of the service at any point.

3.3.1.2. Adverse selection (hidden information)

An analysis of informational asymmetry present in professional services has been provided by Leland (1979). He assumed that professional quality is an adverse selection problem and uses a model based upon Akerlof's (1970) seminal 'market for lemons' paper. Akerlof's paper[5] models the impact of informational asymmetry on the quality of products or services, and in the context of professional services can be summarised as follows:

- When service quality is unobservable by consumers, workers will lower service quality;
- Consumers will expect workers to 'skimp' on quality, and they will lower their willingness to pay;
- Prices will decline;

[5] Akerlof, Spence, and Stiglitz jointly received the Nobel Memorial Prize in Economic Sciences in 2001 for their research related to asymmetric information.

- In turn, workers will be forced to lower quality even further to make profits at the lower prices;
- Thus, quality will decline.[6]

Essentially, Akerlof's 'market for lemons' describes the adverse selection market failure where informational asymmetry (or hidden information) results in lower-quality providers of products or services driving out higher-quality providers when there is strong informational asymmetry. A 'market for lemons' is most likely to occur where services are classed as 'credence' or 'one-off experience'.

3.3.1.3. Moral hazard (hidden action)

Similarly, Shapiro (1986) studies moral hazard within professional services and the impact of this on service quality – as opposed to the adverse selection problem studied by Leland (1979). Moral hazard refers to the concept that a party or individual can alter their behaviour if they know that they are 'insured' against particular outcomes.

Broadly, Shapiro treats the quality of a professional service as defined by the worker's human capital investment (HCI), i.e. training, and the time or effort with which the individual performs their work:

Quality = HCI + time or effort

Where the consumer cannot observe the time or effort with which the individual performs their work (i.e. hidden action), unless there is an incentive to do otherwise, the worker will put in a low level of effort, and produce a low quality of service.

3.3.2. 'Paternalism' or 'society knows best'

It can be argued that, with regard to some services, individuals may be incapable of knowing their true interests so that there exists a need for a 'paternalistic' intervention. Moore (1961) describes this argument as 'society knows best' and describes that this potential need (or market failure) can take two forms:

- the individual does not have perfect knowledge of the past, present and future and therefore does not know what is best for him. However, society may have a better idea of the future and therefore may know better what is best for the individual – *a failure of information at the individual level but not at the societal level;* or
- even if the individual does have perfect knowledge of the past, present, and future, he would still not be the best judge of his own welfare – *a failure of reasoning at the individual level.*

In health and social care, where poor care in some cases is associated with catastrophic risks for patients, the rationale for government to play a paternalistic role may be significant.

Furthermore, people in need of health and social care are often, as a direct result of their need, likely to be vulnerable due to physical or mental incapacity. Therefore, as well as vulnerability affecting an individual's ability to judge quality of service through experience (see Section 3.1.1), some patients may be so vulnerable that paternalistic intervention is required.

[6] This summary of Akerlof's 'market for lemons' has been adapted from: http://www.slideshare.net/guestffda0/a-market-for-lemons-presentation

3.3.3. Negative externalities

Finally, the market for health and social care may be characterised by certain negative externalities, which leads to a divergence in private (individual level) and social welfare. For example, the poor care that one person receives may harm others. Moore (1961) describes how an incompetent physician may fail to diagnose an infectious disease, thus precipitating an epidemic (Moore, 1961: p. 110). Externalities can also be psychological – a 'caring externality' occurs where individuals receive psychological benefit from knowing that other people are receiving appropriate treatment. Conversely, individuals can be psychologically harmed if they observe or are aware of other individuals being treated poorly even if they themselves are not physically affected.

3.4. Interventions

This section describes interventions that can address some or all of the market failures described above and discusses the implications of these interventions. It starts with a brief description of how contracts might be used to overcome particular market failures, followed by a discussion of statutory registration, before focusing on voluntary registration.

3.4.1. Quality-contingent contracts

Shapiro (1986) describes that one of the simplest means of solving problems of service quality is the use of quality-contingent contracts. However, Shapiro adds that "it is often too costly for consumers or regulators to observe the quality of the outcome of a service well enough to condition payments on quality". Furthermore (as described in Section 3.4.5) in the case of health and social care, the quality of outcomes are often either difficult to assess, observable only after a considerable period of time, and can be subject to variation unrelated to the actions of the worker. This makes the writing of complete quality-contingent contracts an impossible, or at least a prohibitively expensive, task.

3.4.2. Statutory registration of workers

3.4.2.1. Overview of statutory registration

Statutory registration of workers (referred to as *licensing* in the economics literature) is defined as a process where entry into an occupation requires the permission of the government, and the state requires some demonstration of a minimum degree of competency (Kleiner, 2000).

More specifically, statutory registration is implemented by a statutory body and requires all workers operating in the market to:

- demonstrate a minimum level of human capital investment (training) and/or experience;
- adhere to on-going standards, continuous professional development and codes of conduct; and
- to pay a fee to maintain their licence with the body;

and the statutory body:

- relies on complaints to detect and act on staff malfeasance.

Statutory registration can be carried out solely by the state. However, it is often carried out through a combination of the state and the relevant profession through 'self-regulation'. This means that the profession uses its expertise and knowledge of the industry to regulate its own professionals under the sanction or support of the regulatory state. The benefits of self-regulation include the ability to make use of the information advantage of the professions, greater flexibility, and the internalisation of regulatory costs within the profession (Van den Bergh, 2004). However, this is offset by its potential lack of democratic legitimacy and the risk that the profession may abuse their self-regulatory powers to restrict competition (Van den Berg, 2004), discussed further in Section 3.4.2.5 below.

3.4.2.2. Effects of statutory registration: Informational asymmetry

A traditional justification for statutory registration of workers (licensing) is that it can eliminate a 'market for lemons' problem for consumers – i.e. where strong informational asymmetry leads to low quality providers driving out higher quality providers. Leland (1979) describes how setting minimum quality standards will raise the average price and quality of a product (or service), attracting more able individuals to the market.

Another related justification described by Shapiro (1986) describes how statutory registration might be seen as a means to resolve the moral hazard problem – i.e. where the consumer cannot observe the actions of the worker (the time or effort with which they perform their work). In Shapiro's model, entry restrictions (statutory registration) magnify a worker's incentives to acquire reputation by reducing the marginal cost of producing quality. The premise being that workers who have made investments in education can produce high quality services with less effort. Because it is easier for them to do a good job, they do so more often.

3.4.2.3. Effects of statutory registration: 'Paternalism' or 'Society Knows Best'

Another common justification for statutory registration (licensing) is that it is paternalistic. Svorny (2000) describes how "society may, as a whole, decide that some people are not smart enough to make their own choices and that government should decide for them". However, Svorny (2000) goes on to describe a counter-argument that "if this not-smart-enough group of individuals is also poor, the higher prices under licensure [statutory registration] may lead them to even poorer choices in the black market than they would have made in an unregulated market". It should be noted, however, that such a counter-argument applies less well to circumstances in which services are provided free at the point of use, as is the case with the vast majority of NHS care (but not social care).

3.4.2.4. Effects of statutory registration: Negative externalities

Another traditional argument for statutory registration (licensing) is that where there are significant negative externalities (see Section 3.3.3), consumers may not have the incentives to act in a way that protects others. It may therefore be desirable to use statutory registration to direct individuals to seek a service that also protects others. However, Svorny (2000) also describes a counter-argument here, that, "if the higher cost of licensed [mandatorily registered] professionals shifts large numbers of consumers into do-it-yourself remedies, infectious disease may spread even more under a system of licensure [statutory registration] than without it". Again it should be noted that such a counter-argument applies less well to circumstances in which services are provided free at the point of use.

3.4.2.5. Effects of statutory registration: Monopoly effects

An alternative view on the economics of staff licensing or statutory registration, in contrast to the theory described above, is that it restricts the supply of labour to the occupation and thereby drives up the price of labour as well as the services rendered (Rottenberg, 1980, Kleiner, 2000). Indeed, this effect is sometimes argued as a rationale for statutory registration through what is known as *capture theory*, which holds that regulation is supplied in response to the demands of interest groups aiming to maximise the incomes of their members (Posner, 1974).

Furthermore, Svorny (2000) describes how "scope-of-practice restrictions, which limit paraprofessionals and others from providing services within the bounds of the licensed profession, contribute to the view that licensing [statutory registration] rules are anti-competitive. In medical markets, for example, prohibiting nurse practitioners from prescribing drugs or offering treatment without physician supervision is thought to unduly restrict the potential for optimal division of labour and efficiency in resource use" (Svorny, 2000: p. 304).

Svorny (2000) also describes, "where education and training standards are specified [by the licensing process], critics lament the lack of opportunity for innovation and the bias toward existing methods of education and training. Why, they ask, should everyone be trained in the same method and with a similar philosophy? In medicine the lack of competition is seen as hindering the development of alternative treatments that might improve or prolong lives" (Svorny, 2000: pp. 304-305).

However, it can be argued that the monopoly effects of statutory registration may be consistent with the public interest. Similar to Shapiro and Stiglitz's (1984) conclusion that higher wages are required to deter shirking, it can be argued that high wages and the threat of not being able to practise may be what is required to ensure that workers do not renege or abuse the position of trust conferred on them by consumers.

Furthermore, higher wages under statutory registration may be an efficient response to the 'hold-up problem'. The 'hold-up problem' can occur where workers are required to invest in significant profession-specific training before entry to the workplace. The potential employee may be reluctant to invest in their own training for fear that the employer (who has not invested in the training) would hold bargaining power over the employee's wage rate after completion of training (i.e. the employer could 'hold-up' the employee). For those health and social care workers where the 'hold-up' problem is large, restrictions on entry – increasing the probability of employment once trained and increasing the wage rate once employed – may be needed to encourage people to make this investment. Rico and Puig-Junoy (2002) suggest that the hold-up problem may be significant in cases where (i) the training required to work in the field is expensive to obtain (both in terms of fees and opportunity cost of the individual's time); (ii) the potential career of the individual using these skills is long; and (iii) the investment in skills is profession-specific and cannot be used elsewhere for a similar return.

3.4.2.6. Costs of statutory registration

Statutory registration limits entry into an occupation by requiring workers to seek the permission of the government in order to practice; it therefore requires a statutory mandate. By requiring legislation at initiation, and further legislation for each subsequent amendment, the establishment and maintenance of an effective statutory registration scheme may be costly and inflexible. This in turn may stifle innovation within a statutorily registered profession.

By requiring workers seeking to practice in an occupation to (i) meet the standards set by government and (ii) pay a fee, statutory registration also imposes a mandatory burden on staff working in that occupation.

However, by addressing the problem of informational asymmetry, it is arguable that statutory registration can reduce the potential costs (to both consumers and workers) of ameliorating informational asymmetry through other means.

3.4.3. Voluntary registration of workers

3.4.3.1. Overview of voluntary registration

Voluntary registration of workers (referred to as *certification* in the economics literature) is an intervention by which professionals or workers that meet certain standards can be identified, but that does not restrict the practice of others. As such, voluntary registration is a process that can be thought of as providing a *quality signal* to allow higher quality workers to distinguish themselves from lower quality workers.

Voluntary registration would usually require workers who chose to be registered to:

- demonstrate a minimum level of human capital investment (training) and/or experience;
- adhere to on-going standards, continuous professional development and codes of conduct; and
- to pay a fee to maintain their registration with the body;

and the registration body:

- relies on complaints to detect and act on staff malfeasance.

However, crucially, voluntary registration differs from statutory registration in that workers and consumers have a *choice* as to whether they, respectively, become registered or use a registered worker. A worker may choose whether or not to invest in training or experience in order to meet the minimum quality standards (set by the voluntary registration body) that would allow them to become registered. Furthermore, since voluntary registration bodies usually require a registration fee, a worker who meets the standards of the voluntary register may still choose not to become registered. For this reason, under a system of voluntary registration, a worker needs to weigh up the payoff of being registered (i.e. a potentially higher wage, or being preferentially hired, less any human capital investment required to meet a registration body's minimum quality standards and less any potential registration fee) against the payoff of remaining unregistered. The consumer also has a choice – whether to use a registered worker with the expectation of a higher quality service (but usually at a higher cost) or to use a non-registered worker of unknown quality (usually at a lower cost) – i.e. the consumer has to trade off cost and quality when making their decision.

3.4.3.2. Effects of voluntary registration: Informational asymmetry

Viscusi (1978) describes how voluntary registration (certification) can address an informational asymmetry problem, or more specifically an adverse selection problem as described in Section 3.3.1. Viscusi uses Akerlof's 'market for lemons' model and describes the mechanism that determines which workers will choose to become voluntarily registered. He calls this an 'unravelling process' and shows that individuals at the above-average end of the quality spectrum will successively distinguish themselves from the group in a process that unravels from the top down. As high

quality individuals successively remove themselves from the amorphous pool, so the average quality of those left behind falls, raising the benefit of voluntary registration to the next highest quality individual relative to previous iterations. Voluntary registration provides a quality signalling tool, enabling higher quality workers to distinguish themselves from lower quality workers and thus address the informational asymmetry problem.

3.4.3.3. Effects of voluntary registration: 'Paternalism' and 'Negative externalities'

Leffler (1978) describes how "under an externality or do-gooder [paternalistic] rationale for intervention, certification [voluntary registration] cannot provide a solution". He describes that "what is required under these rationales is changing individuals' opportunity sets such that they choose the socially preferred consumption patterns".

However, having said that, if policies are introduced alongside a voluntary register to encourage its use (by workers and consumers) it may be possible to address the 'paternalism' or 'negative externalities' market failure to some extent.

3.4.3.4. Effects of voluntary registration: Voluntary registration and choice

In contrast to statutory registration, voluntary registration can be thought of as a guide providing choice and therefore may not impose the negative monopoly effects associated with statutory registration (as described in Section 3.4.2.5). For example, voluntary registration does not impose division of labour constraints or hinder innovation and competition to the extent that statutory registration does. However, voluntary registration does not therefore benefit from the potentially valuable monopoly effect of higher potential losses for malfeasant workers. Svorny (2000) describes that under a voluntary registration scheme, "non-certified [non-registered] individuals would compete with certified [registered] practitioners, making it impossible to maintain abnormal profits to discourage physician malfeasance". Voluntary registration schemes, therefore, potentially have less ability than statutory registration to sanction poor behaviour through the financial penalty of de-registration.

3.4.3.5. Costs of voluntary registration

Voluntary registration does not necessarily have a statutory basis, and so does not generally require the approval of Parliament to establish or amend it. This means that a voluntary registration scheme can be a more flexible and responsive tool when compared to statutory registration, potentially allowing greater innovation among those occupations subject to voluntary registration.

However, voluntary registration (usually) imposes a registration fee; this represents a burden on workers who choose to become registered. This burden would be of particular significance for voluntary workers as they do not receive a wage.

3.4.4. Comparison of statutory and voluntary registration

As set out above, the welfare effects of both statutory and voluntary registration are multifaceted and complex.

Indeed, Svorny (2000) describes how "despite years of debate, there is no clear consensus on whether state licensing [statutory registration] improves consumer welfare" and goes on to describe that "because market entry restrictions restrict the supply of professional services available to consumers, they can be welfare enhancing

only if the gains to consumers offset the welfare loss associated with the reduction in supply". Similarly, Shapiro (1986) concludes that statutory registration cannot constitute a *Pareto improvement* (i.e. where at least one actor is made better off, without making any other actor worse off). Consumers who value high quality will benefit from statutory registration as it reduces the price of high quality services. However, for consumers who attach little value to high quality, statutory registration forces them to pay for over-trained professionals. Therefore, statutory registration benefits consumers who value high quality at the expense of those who value quality little.

Svorny (2000) describes how economists have long favoured certification [voluntary registration] over licensure [statutory registration] "because consumers can use certification as a guide, but may purchase care from non-certified practitioners if they so choose". Similarly, Leffler (1978) describes how "certification [voluntary registration] provides all the information of licensure [statutory registration] while offering a wider choice set" and describes how "under a costly information [informational asymmetry] argument for intervention, certification [voluntary registration] is the preferred response".

However, Leffler (1978) describes that "under either an externality or a do-gooder [paternalism] rationale for intervention, certification [voluntary registration] cannot provide a solution". Similarly, Svorny (2000) states that "the only suggested theoretical value of licensure [statutory registration] over certification [voluntary registration] is in creating a profit stream that discourages malfeasance".

Therefore, where there is only an informational asymmetry market failure, voluntary registration is likely to be preferable since it can offer all of the information that statutory registration can whilst offering a wider choice set.

On the other hand, where there is a particularly strong problem of 'negative externalities' and/or a strong need for 'paternalistic' intervention, voluntary registration may not be sufficient and statutory registration, whilst not perfect in addressing these market failures, may be preferable – but this must be weighed carefully against the negative monopoly effects that statutory registration can impose.

However, where the costs of imposing statutory registration are deemed too great but where there may be some desire to guide or influence consumers towards higher quality services and away from services that may pose risks (i.e. where there is some need for paternalistic intervention or some concern about negative externalities), a voluntary register (alongside policies to encourage its use) may form a pragmatic solution.

3.4.5. Market-based mechanisms

There are a number of market-based quality assurance mechanisms that, like voluntary registration, aim to inform consumers about the quality of a product or service and can therefore (at least partially) address an 'informational asymmetry' market failure. Consideration of such market-based mechanisms effectively constitutes consideration of a 'do-nothing' approach.

As described at the start of this section (Section 3.4.1), a quality-contingent contract is one of the simplest market-based mechanisms for addressing the problem of service quality. However, in the health and social care sector, it is often too costly for consumers or regulators to observe the quality of the outcome of a service well enough

to condition payments on quality – making the writing of complete quality-contingent contracts a prohibitively expensive task.

Other market-based quality assurance mechanisms are described below:

- *A consumer's past-experience:* consumers may be able to assess quality for themselves where it is possible to assess quality post-consumption. This method is therefore limited to services that are classed as 'experience' in the search-experience-credence framework (see Section 3.3.1.1). However, a consumer is only able to accumulate and benefit from this information if the service is a 'repeat-purchase service'.
- *Word-of-mouth/reputation:* consumers may be able to benefit from other consumers' assessments of quality. This alleviates the need for consumers to purchase services frequently to benefit from the information accumulated. For example, there are increasing numbers of eBay-style ratings of providers of products and services. However, word-of-mouth and reputation require that consumers are able to accurately assess the quality of service post-consumption (i.e. they apply to 'experience' services).
- *Branding* is a common quality assurance mechanism that is usually initiated and maintained through the seller's marketing efforts. Brands have credibility because they are developed over time on the basis of experience and often require considerable expense to maintain (Dranove and Jin, 2010). Individual workers may find it hard to develop their own brands; however, in some cases, organisations that represent workers can build brands more easily. For example, an agency (for nurses or care workers, say) may become quite expert at knowing which worker characteristics are good indicators of service quality and can therefore develop the know-how to select high quality workers. A nurse or care worker signed up by the agency is therefore able to use the agency's brand as a quality signal. However, branding may be biased and therefore not as trustworthy as a quality signal from a third party.
- *Warranties:* sellers may offer warranties. However, warranties are uncommon for professional services because consumers have difficulty gauging service quality even after consumption. Warranties for hospital care are almost unheard of (Dranove and Jin, 2010).

3.4.6. Comparison of voluntary registration and market-based mechanisms

As described in Section 3.4.5 above, market-based mechanisms may go some way to resolving a problem of informational asymmetry, and can do so without government intervention. However, Table 3A below sets out some of the key limitations of such mechanisms:

Table 3A: Limitations of market-based mechanisms

Market-based mechanism	**Limitation**
A consumer's past-experience	Not effective for 'credence' or 'one-off experience' services
Word-of-mouth/reputation	Not effective for 'credence' services
Branding	Likely not as trustworthy or independent as a third-party quality signal.
Warranties	Not effective for 'credence' services

Table 3A indicates that market-based mechanisms may not be particularly effective in addressing the informational asymmetry problem where services are classed as 'credence' or 'one-off experience'. In these cases, a third party quality signal (such as voluntary registration) may be preferable.

Additionally, a third-party quality signal such as a voluntary register brings with it the benefits of standardisation and independence as summarised by Dranove and Jin (2010) below:

"Disclosure [certification or voluntary registration] has three distinguishing features: First, disclosure [certification or voluntary registration] systematically measures and disseminates information about product quality, which makes it attractive when other mechanisms for quality assurance are inadequate and the value of quality information when aggregated across all consumers is large relative to the costs of information collection. Second, disclosure [certification or voluntary registration] is usually conducted via third-party certifier(s) that identify themselves separately from manufacturers [or those providing services]. This may give consumers an impression that the disclosed information is more trustworthy than seller advertising. Third, disclosure [certification or voluntary registration] standardizes quality assessment so that results are readily comparable across sellers."

Dranove and Jin (2010) also describe how "disclosure [certification or voluntary registration] both complements and substitutes for other quality assurance mechanisms. In lemons markets, disclosure [certification or voluntary registration] provides more precise and comparable information than word of mouth, warranties and brand names".

To summarise, the introduction of a third party quality signal such as a voluntary register may be preferable to market-based mechanisms where there is strong informational asymmetry (i.e. where services are classed as 'credence' or 'one-off experience'). However, this must be weighed against the costs associated with introducing a register – i.e. the value of quality information when aggregated across all consumers needs to be large relative to the costs of information collection.

3.5. Summary of chapter

This chapter has described the market failures that may be present in the provision of health and social care services. It describes and compares the key interventions – statutory registration, voluntary registration and market-based mechanisms that may be deployed to reduce the effects of market failures present. For ease of reference, the key points from this chapter are summarised in the table overleaf (Figure 3B).

Figure 3B: Summary of key points from Chapter 3

		Statutory registration	**Voluntary registration**	**Market-based mechanisms**
Key function		Restricts entry to occupation – i.e. imposes minimum standards	Quality signalling	Quality signalling
Market failures addressed by intervention	**Information asymmetry**	✓	✓	Partially – depending upon consumers' ability to assess quality post-consumption
	Paternalism	Yes – however, can push some consumers into the black market	Generally no, however market failure addressed to some extent if use of voluntarily registered workers encouraged	No
	Externalities	Yes – however can push some consumers into do-it-yourself remedies	Generally no, however market failure addressed to some extent if use of voluntarily registered workers encouraged	No
Monopoly effects		Imposes monopoly effects, i.e.: • Restricts labour • Raises wages • Anti-competitive • Restricts innovation BUT • Deters shirking and malfeasance • Discourages the hold-up problem	Does not impose monopoly effects to the extent that statutory registration does i.e.: • Labour not restricted • Competition and innovation not restricted BUT • Less effective at discouraging malfeasance	Does not impose monopoly effects
Choice		Restricts choice	Provides a guide – does not restrict choice	Does not restrict choice
Costs/burdens		Requires legislation, which is costly and inflexible to change Imposes a statutory burden on workers	Generally no or little red-tape costs More flexible than statutory registration Imposes burdens on workers that choose to become registered Voluntary registration body may be able to signal quality more cheaply than each individual worker can	May impose some costs on consumers (in assessing quality) and/or on workers (in building up a brand) Potentially not trustworthy and information not standardised May not be as efficient as having one voluntary registration body signalling quality

	Statutory registration	Voluntary registration	Market-based mechanisms
Welfare effects	Ambiguous – welfare-enhancing only if gains to consumers offset the significant welfare loss associated with reduction in supply. Benefits consumers who value high quality but does not benefit those who do not.	Ambiguous – voluntary registration favoured over statutory registration where there is only an informational asymmetry market failure. Where the costs of imposing statutory registration are deemed too great but there may be some desire to guide consumers towards higher quality services and away from services that may pose risks, (i.e. where is some need for a paternalistic intervention or some concern about negative externalities), a voluntary register alongside policies to encourage its use may be a pragmatic solution. However, where are strong 'negative externalities' or a strong need for paternalistic intervention, a voluntary register may not be sufficient.	May be sufficient on its own where services are classed as 'experience'. However, welfare may be enhanced by the introduction of a voluntary register where services are classed as 'credence' or 'one-off experience'.

4. Voluntary registers: which occupational groups?

4.1. The public demand for voluntary registers

In Chapter 3 we demonstrate that a voluntary register might be demanded where:

- the costs of imposing statutory registration are deemed too great but where there is some desire to guide or influence consumers towards higher quality services and away from services that may pose risks; and
- there is strong informational asymmetry (i.e. where services are 'credence' or 'one-off experience') and market-based mechanisms are not sufficient in addressing the informational asymmetry.

Therefore, a voluntary register might be demanded in the unregulated health and social care workforce where there are:

- perceptions about risks to patients that existing safeguards are not able to address; and
- perceptions that there are deficits in quality of services due to informational asymmetries that existing market-based quality signalling mechanisms cannot sufficiently address.

Demand for voluntary registers is also affected by the willingness of individual consumers or employers (as applicable) to pay for different levels of safety or quality. It is possible for quality to be raised too high in relation to demand as well as for it to remain too low.

4.1.1. Broad demand criteria

Whilst the demand for a voluntary register should be considered on a case-by-case basis, it is possible, drawing on the above, to define some broad criteria which assist in identifying the characteristics of occupational groups where a voluntary register is most likely to be demanded – i.e. where consumers are likely to find the establishment of a voluntary register most useful.

Broad demand criteria:

i) *'Frontline' workers:* the degree to which workers provide 'frontline' patient care, as opposed to 'non-frontline' services. It is presumed that frontline workers pose a greater direct risk of harm to patients than non-frontline workers.

ii) *'Credence' or 'one-off experience' service:* a 'market for lemons' (i.e. where low quality workers drive out high quality workers) is most likely to occur where services are classed as 'credence' or 'one-off experience' (see Section 3.3.1.1).

iii) *Vulnerable consumers:* the degree to which consumers (i.e. patients/clients or their carers) are vulnerable or incompetent as opposed to empowered or competent. It is presumed that vulnerable or less competent consumers are less able to assess the quality of a service.

iv) *Presence of other risk safeguards or quality mechanisms:* the degree to which there are other risk safeguards and quality mechanisms in place (see Section 2.3). One of the key factors is whether staff work within the umbrella of a public or private organisation or outside the umbrella of an organisation (i.e. are self-employed). Another is whether they work in a single-handed capacity or in a group/team, which may or may not be equivalent to whether they work for an organisation or are self-employed.

It should be noted that these demand criteria cover both 'risk' and 'deficits in quality' and there is a degree of overlap. For example, identification of occupational groups in the unregulated workforce that may pose risks to patients may be broadly driven by the demand criteria (i) '*frontline*' *workers* and (iv) *presence of other risk safeguards or quality mechanisms*. Identification of occupational groups where there may be deficits in quality due to informational asymmetry may be broadly driven by criteria (ii) *'credence' or 'one-off experience' service,* (iii) *vulnerable consumers* and (iv) *presence of other risk safeguards or quality mechanisms.*

It is possible to examine the likely interactions between the demand criteria set out above in order to further characterise those occupations where demand for a voluntary register may be greatest. These interactions are considered in Table 4A below.

Table 4A: Characterisation of those 'frontline' workers where demand for a voluntary register may be greatest

		Credence or experience service (Demand criterion (ii))	
Presence of other risk safeguards or quality mechanisms (Demand criterion (iv) [7])	**Vulnerable or empowered consumer** (Demand criterion (iii))	Repeat purchase experience	Credence or one-off experience
Work outside the umbrella of an organisation or in single-handed capacity (i.e. self-employed)	Vulnerable	+++	++++
	Empowered	++	+++
Work within the umbrella of a private or public organisation or in a group/team	Vulnerable	+	++
	Empowered	-	+

Key: ++++ very strong demand; +++ strong demand; ++ medium demand; + some demand; - little or no demand.

4.1.1.1. 'Frontline' workers

Table 4A suggests that the greatest demand for voluntary registration of frontline workers will be for those who are self-employed and where a significant proportion provide either credence or experience services to vulnerable patients/clients, or credence or one-off experience services to empowered patients/clients, on a one-to-one basis outside the umbrella of either a private or public organisation. This is because of the higher downside risk of unsafe or poor quality care for patients/clients fending for themselves in the 'market' for care, especially where credence services are concerned. However, it should be

[7] For simplicity here, the question of whether a worker is within or outside the umbrella of an organisation and/or whether they work in a single-handed or team environment is used as a proxy for criterion (iv) – presence of other risk safeguards or quality mechanisms.

remembered that unregistered workers may continue to be chosen by such patients/clients if they lack the ability or willingness to pay for higher quality care.

There should be somewhat less demand for registration if self-employed 'frontline' workers provide repeat purchase experience services mainly for empowered patients/clients or if 'frontline' workers who provide credence or one-off experience services are employed by organisations and are put into supervised teams.

There should be least demand for registration of 'frontline' workers that are recruited and managed by employing organisations, especially if they supply repeat purchase experience services. Organisations can be expected to have the capacity for informed recruitment, training, supervision and, if necessary, dismissal of staff – although this may be more difficult for staff supplying credence services, especially if the occupation concerned is small. There is also the potential for peer-group scrutiny in organisations[8].

4.1.1.2. Non-'Frontline' workers

Where does this leave the case for voluntary registration of non-frontline workers – who play a vital role in the efficiency of health and social care services? Here, there will be a weaker case for registration. Such workers will not generally be able to harm patients/clients or affect their quality of care directly by carrying out their routine tasks (although some administrative workers, for example, occupy frontline positions). Moreover, to some extent employers should be able to judge the quality of non-'frontline' workers in advance on the basis of their qualifications, job histories and references, and after appointment on the basis of experience. Nevertheless, to the extent that these mechanisms for judging quality are imperfect and to the extent it is difficult to remedy mistakes, there may still be some demand for voluntary registers to assist with recruitment and to incentivise the acquisition of further skills and professionalism among support workers. Voluntary registers, therefore, could reduce the costs not only of recruitment (particularly where turnover of staff is high) but also of in-house training and supervision. This should help to improve the productivity of the 'non-frontline' function.

4.1.2. *Applying the demand criteria to the unregulated workforce*

It is possible to apply the broad demand criteria to each of the main occupational groups of the unregulated UK health and social care workforce (see Figure 2A, Section 2.1). In order to do this comprehensively, an in-depth knowledge of each occupational group would be required. In the absence of this, Table 4B provides an indicative illustration. Subjective assessments of the strength of the demand for voluntary registration in an occupational group are indicated by one, two, three or four plus signs against each criterion – or by none at all. Relatively low scores are given to non-'frontline' workers, since, as described in Section 4.1.1.2 above, such staff are mainly employees and their employers should be able to select and manage them mainly on the grounds of experience.

Simple summation of these plus signs is risky because they are subjective, they may be multiplicative rather than additive and because it implies that each demand criterion is valued similarly. Nevertheless, crude summation would suggest that the case for registration is strongest for direct care and support workers in social care (to the extent that they remain

[8] Although there may also be the potential for 'toxic' care cultures to develop in organisations lacking in professionalism or under weak management, especially when the clientele is vulnerable.

unregulated[9]), for nursing and midwifery assistants and for psychotherapists. The case is weakest for administrative staff, for other professional assistants and for hotel and estate workers.

Table 4B: The strength of the demand for voluntary registration of the main occupational groups of the unregulated UK health and social care workforce

	Headcount 2010 (thousands)	Demand criteria			
		(i) Frontline	(ii) Credence Services	(iii) Vulnerable patients/ clients	(ii) Self-employed
Health workers					
Administration	420	+			
Nursing and midwifery assistants	249	++++	+	++	
Pharmacy assistants	61	++	+		
Other professional assistants	78	++	+		
Psychotherapists	2	+++	++	+	+
Hotel and estates	92	+			
Managerial	57	+			
Social care workers					
Direct care and support workers	1,192	++++		++	++
Admin/ancillary	225	+			
Managerial/supervisory	161	++			

Key: ++++ very strong case for registration: +++ strong case for registration; ++ medium case for registration; + some case for registration.

4.2. The supply of voluntary registers

The supply of voluntary registers is likely to depend upon the perceived economic advantage of registration to some or all members of the group of workers concerned – or in other words, the demand for voluntary registers from potential members. From the point of view of potential members, the expected rewards of creating a register must exceed any extra costs of meeting the standards required by the register and the fees charged. Such rewards can arise from revealing or creating a genuine quality differential between registered and unregistered workers. The scale of potential rewards is likely to be influenced by the stance of public policies, including the encouragement of preferential hiring of voluntarily registered workers by public sector employers and the willingness to utilise or introduce wage differentials. The stance of public policy should depend upon the demand for higher quality staff. If the demand is there, appropriate policies should provide the incentives for higher quality workers to register, alongside on-going incentives for workers and prospective workers to invest in their skills and to acquire and maintain reputations for good conduct.

However, the rewards of a register can be further boosted if the register were used to inappropriately raise barriers to entry – for example by incumbents raising the register's quality threshold for new entrants in order to create artificial scarcity – thereby exploiting its monopoly power by imposing a monopoly premium. Public policies can be used to combat abuse of monopoly powers and this is discussed further in Section 5.2 – 'What should an accrediting body do?'

[9] Care workers and their managers in residential homes have been regulated since 2005 via a requirement that the owners of homes must ensure that at least 50% of such care workers and 100% of their managers hold specified levels of NVQ qualifications.

An occupational group which is small, coherent, highly trained and well-paid may find it easier to establish a register than an occupational group which is large, dispersed and relatively unskilled, partly because professional sentiment is likely to be higher and turnover lower for the former than for the latter. However, there will be economies of scale in registers and the potential for lower fees which may encourage the formation of registers for larger groups, other things being equal.

It would be possible for an accrediting body to adopt a *passive* stance in relation to the supply of voluntary registers – that is to wait for registers to be formed or not, as the case may be, and to consider accreditation only for those which are brought forward. However, it would also be possible to adopt a more *active* policy stance by, for example, inviting the formation of registers for occupations where there may be public demand for one. This is also discussed further in Section 5.2 – 'What should an accrediting body do?'

5. Voluntary registers: why and how should they be accredited?

Chapter 3 summarised the available academic literature relating to voluntary registers – in particular, it discussed the market failures that voluntary registers can address, contrasting with the adjacent interventions of 'a statutory register' and 'no register at all'. This information was used in Chapter 4 to identify the characteristics of the health and social care workforce most suited to voluntary registration, assessing each of the main unregulated groups against these criteria.

This chapter builds on the questions of 'why' and 'to whom' voluntary registers are best applied (i.e. Chapters 3 and 4) to address the question of 'how' voluntary registers should operate effectively. It does this partly by interpreting some of the material in Chapter 3 – i.e. by thinking about what voluntary registers are theoretically designed to achieve – and partly by reviewing additional literature around the effective operation of a voluntary register.

How a voluntary register should be designed to operate effectively is of crucial importance to the question of how voluntary registers should be accredited, but it is not the only consideration for an accrediting body. For example, as well as focusing on individual registers, an accrediting body will also be interested in issues of wider concern, such as whether it should seek to encourage the development of a register for a particular occupational group and what its policy should be in relation to competing registers – that is to say, the emergence of more than one register for a particular occupational group.

This chapter therefore takes a broad approach to answering the question of how voluntary registers should be accredited by first considering 'what an 'effective' voluntary register should do' (Section 5.1) and then moving on to 'what an accrediting body should do' (Section 5.2).

5.1. What should an 'effective' voluntary register do?

There are two high-level functions required of an effective voluntary register: to be able to *discriminate high quality workers from low quality workers*; and to establish a quality requirement for registered workers that *meets a genuine demand* (amongst at least a subset of consumers) *for higher than average quality of care*.

More specifically, various conditions need to be satisfied in order for a voluntary register to operate effectively. The following section sets out these conditions and, where appropriate, draws upon and references relevant economics literature.

An effective voluntary register should:

5.1.1. Measure or judge the quality of workers and lead to a separation in the quality of the workforce

Those running a voluntary register must be able to measure or judge the quality of workers – at the very least, in a better-than-random way. This may be difficult, especially where credence services are concerned or where there is a lack of an evidence base. It is the main reason why an element of self-regulation in a register – professionals assessing professionals – has merits. The best form of measurement of quality is by outcomes but it is difficult or expensive to do this, especially for credence services. It may be necessary for a register to rely mainly on demonstrating process or structural measures of quality (see Box 3).

In addition, a voluntary register should not only be able to judge quality but should also signal information on the quality of workers so that consumers can discriminate between those deemed to be of high quality and those of low quality, and are given important information about the standards of care that consumers can expect to receive from high quality workers.

Effective registers will also 'police the brand' to ensure that there are no workers who erroneously claim to be registered, when in fact they are not.

Box 3. Measuring the quality of practitioners

The quality of healthcare should be measured in several dimensions including safety, efficacy and patient experience. Moreover, in principle there are three ways to measure each facet of quality, by distinguishing the structure, processes and outcomes of care (Donabedian, 1966).

The easiest but weakest way for a register to check on the quality of workers is to check on their qualifications and/or experience – a structural measure of quality. A register can consist simply of a list of workers who have gained specified levels of qualifications and experience. This might be updated periodically by records of CPD undertaken if the register seeks to maintain or add to the skills of registrants.

A stronger way to check on quality is by process measures such as inspections of the practice of registrants. This might involve expert peer review (with possible representation from outside the profession) of the practice concerned to assess its appropriateness, or not, as the case may be. Such assessment of processes will be much more reliable for occupational groups whose practise is underpinned by evidence of effectiveness (ideally based on the results of randomised clinical trials) rather than being based on anecdote and opinion (CHRE, 2011).

The strongest way to check on quality is to examine outcomes – such as avoidable deaths arising from the practice of individual registrants or complaints by patients/clients – although the latter could include processes as well as outcomes. Again, this might be done as part of a process of peer review.

5.1.2. Determine the methods for measuring quality, depending on the characteristics of the particular staff group

An effective voluntary register will need to strike the right balance between the various activities which can measure or enhance quality. As indicated in Box 3, these activities may include, for example, registration of those with specified qualifications and/or experience, the drawing-up of and monitoring of codes of conduct, monitoring of CPD and the operation of complaints procedures. The right balance will depend upon the aspects of quality that are in demand and what it costs to supply each aspect as well as the feasibility of measuring each aspect of quality. For some occupations – such as IT workers – the demand may be more for demonstration of qualifications indicating technical prowess and for others – such as care work – the demand may be more for good conduct in the form of care that is basic but also compassionate.

In addition, depending on the most appropriate method for measuring quality, a register will need to decide the extent to which the quality of workers is judged on entry and/or periodically monitored after entry.

5.1.3. Decide how much information on worker quality the register will disclose to consumers

Those operating a voluntary register will need to decide how much information relating to registrants' quality to disclose publicly (i.e. to prospective consumers or employers). For example, a register may disclose that a worker has met the register's minimum quality standard, or a coarse category relating to the worker's level of quality (e.g. qualification or experience bandings), or a precise measurement of the worker's quality. There is literature which explores the implications of various disclosure rules and the quality threshold levels that could be set for registration (Lizzeri, 1999; Klee, 2010). The best strategy for a register seems to be to reveal coarse categories of qualification among registrants and to avoid setting too low a minimum threshold. Disclosure of precise levels of qualification by a register could encourage wasteful investment in education if the acquisition of formal qualifications does not increase quality/productivity but merely reveals it (according to the 'signalling' theory of the contribution of formal education to the productivity of individuals). There is also educational literature on grading students, which points to a similar conclusion, suggesting that coarse grading of exam results will maximise the incentives for effort among students if what they care about is their relative rank (Dubey and Geanakoplos, 2010).

5.1.4. Determine criteria for entry onto the register – i.e. set the threshold level(s) of quality

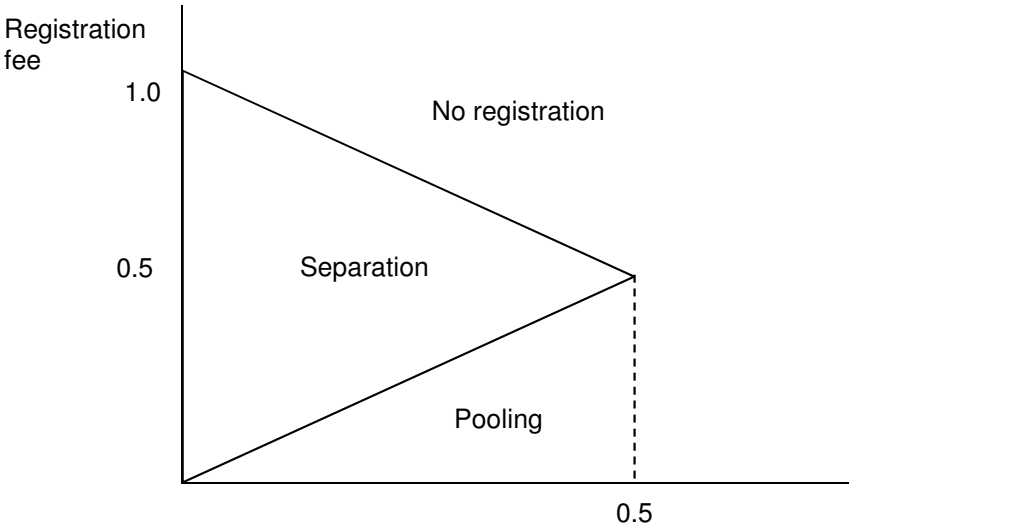
Having determined the appropriate method for measuring quality and decided how much information a register will disclose, an effective voluntary register should determine the criteria for entry. For example, this might depend upon ensuring that workers possess specified levels of qualifications and experience and/or sign up to a code of conduct. A voluntary register will need to determine the *level* of their quality threshold(s) for registration or, in other words, where the register should position itself on the quality spectrum – e.g. the level of qualifications or experience required to become registered or the standard of their code of conduct. Those operating a voluntary register should ideally understand consumers' demand for quality and their ability and willingness to pay for it and be aware of the nature of the quality deficit present within the occupational group since this information will help determine the level at which they should set their quality threshold(s). However, in practice, a voluntary register is unlikely to know precisely where it should set its threshold at the outset. Rather, this is likely to emerge through an iterative process over time.

5.1.5. Set an appropriate registration fee

Myslivecek (2008) has suggested that when a register has a less-than-perfect ability to measure quality, successful separation of high from low quality workers will require the setting of an adequate registration fee. Figure 5A, below, illustrates that as the ability to measure quality declines, so the fee should rise in order to maintain separation – rather than the 'pooling' which occurs when low quality workers succeed in entering the register. That is because a higher fee makes it unprofitable for lower quality workers to seek registration. Above a certain level of fee, it will be unprofitable even for high quality workers to apply for registration and the level of fee at which this happens will decline with a fall in the accuracy of the assessment of quality. There are therefore three zones of 'equilibrium' representing no registration, separation and pooling respectively (Figure 5A). In a separate article, Strausz

(2005) has argued that a higher fee will discourage a registration body from taking bribes or losing its reputation for honesty through 'capture' by the profession concerned.

Figure 5A: The effect of registration fees and the accuracy of registration tests on separation and pooling in voluntary registers of health workers



Adapted from Myslivecek (2008)

Whilst Myslivecek (2008) implies that a register's registration fee should be high enough to make it unprofitable for lower quality workers to attempt to (falsely) obtain registration where a register has a less-than-perfect ability to measure quality, a register will also need to be sensitive to the burden that registration could place on registrants (i.e. the payment of an on-going registration fee and any costs of compliance). Where an occupation generally commands a low wage, consists of a high proportion of part-time workers and is subject to high turnover, the burden could be proportionally high in relation to the average wage. A register would therefore need to strike an appropriate balance between keeping their registration fee high enough to dissuade low quality registrants from opportunistically applying for registration but not so high that it places an unfair burden upon registrants eligible for registration.

There is also literature which appears to justify the common practice for registrants to pay for the registration process as opposed to consumers. Stahl and Strausz (2010) suggest that it is better for workers than for consumers to pay for revealing information about quality because, if consumers have to obtain quality information by paying to inspect workers, they are likely to spend (and waste) resources on inspecting low-quality as well as high quality workers. If, alternatively, workers have to pay for revealing quality by registration they are not very likely to do this unless they are actually high quality. In other words, it uses fewer resources to signal quality by registration than to uncover it by inspection when there is asymmetry of information about quality.

Clearly, from the point of view of aspirant registrants, the benefits of joining a register – in the form of higher wages, improved employment prospects and/or enhanced professional status – need to outweigh the associated costs (i.e. the fees associated with initial

registration and periodic renewal and the cost of acquiring and/or using the skills associated with providing high quality care).

This mechanism *should* ensure that registers will not want to set fees or quality standards higher than the benefit to workers – otherwise nobody would choose to join the register. Whether the higher quality provided by registered workers necessarily translates into cost-effective care to patients, however, is not something that directly follows. This is something that is discussed further in Section 5.2.4.

5.1.6. Give due regard to the register's rate of take-up

The take-up of a register – i.e. the proportion of a particular occupational group who choose to join the register – is determined once decisions about the threshold level(s) of quality for entry to the register and the associated fees have been set (as described above).

To the extent that a register pursues the interests of its existing members rather than the interests of consumers, it will have an incentive to restrict entry to the register so that the wages of its members are protected. An effective register will ensure that it serves the interests of consumers rather than workers. That is not to say that effective registers do not confer any benefits to workers – rather that, if this is the case, it should be through the benefits provided to consumers. This issue is discussed further in Section 3.4.2.5.

5.1.7. Determine exit criteria and the management of 'exited' workers

An effective voluntary register will also need to determine the criteria by which a worker is deemed to have breached the register's quality standard and is exited from the register, perhaps following a warning or series of warnings. This might be defined by a breach of the register's code of conduct or CPD process and/or be driven by a consumer complaints process.

An effective voluntary register will need to consider what happens to a worker who has been 'exited' – i.e. what information is provided to consumers concerning the exited worker. In the case of statutory registration (licensing) an exited registrant is deemed as 'unfit to practise' and is therefore barred from acting in a particular professional capacity. However, for voluntary registration, the implications of a worker exiting a register are not so clear-cut. This is because:

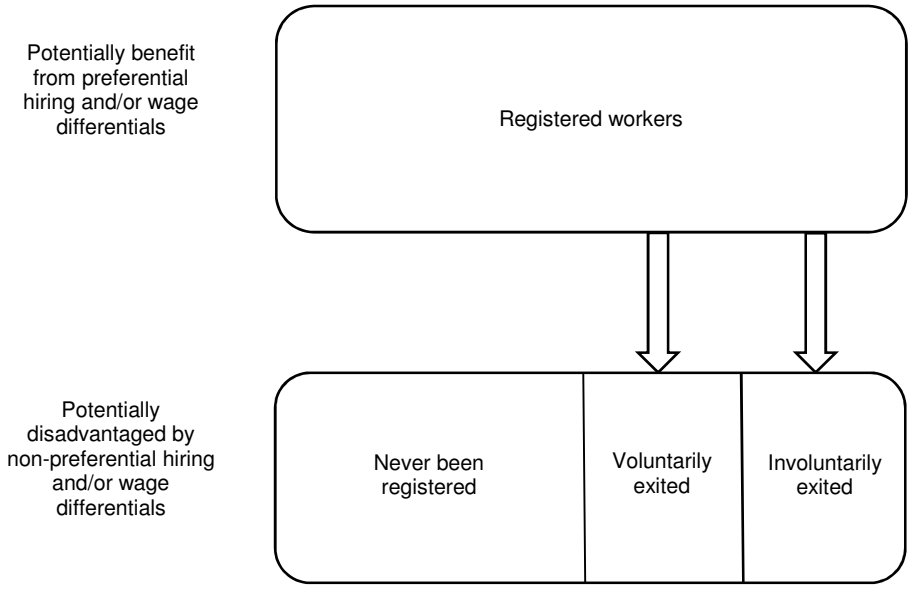
- a worker may choose to voluntarily exit a voluntary register; and
- an 'exited' worker (either voluntarily or involuntarily) may, legally, still practise, i.e. a voluntary register's quality threshold cannot (at least officially or statutorily) represent a signal of workers' 'fitness to practise'[10].

This means that, where there is a voluntary register in place for a particular occupational group, there are potentially four groups of workers, demonstrated in Diagram 5B below:

- registered,
- non-registered – 'never been registered',
- non-registered – 'involuntarily exited'
- non-registered – 'voluntarily exited'

[10] The threshold level of quality might be set with regard to some notion of 'fitness to practise', but because practitioners can, by definition, legally operate without being registered, unregistered workers cannot be assumed to be unfit to practise.

Diagram 5B: Groups of workers when a voluntary register is in place



N.B. sizes of groups are not representative and would depend upon the specifics of the voluntary register.

The three groups of non-registered workers are likely to be disadvantaged (as compared to registered workers) by non-preferential hiring or wage differentials. However, an important question is whether workers who have been exited from the register (either voluntarily or involuntarily) should be penalised further or treated differently to any 'never-been registered' workers. This potentially depends upon the nature of the quality deficit that the voluntary register is seeking to fill (i.e. whether the register exists in response to concerns about low average quality of workers across a particular occupational group or in response to the need to signal a differentiated level of quality to a particular segment of consumers).

Where there are concerns about pervasive low quality – i.e. there are perceptions that non-registered workers pose risks to patients – there may be a policy case for discouraging the use of non-registered workers. (In this sense, it might be possible for a voluntary register to mimic the impact of a statutory register without requiring legislation). Non-registered workers would effectively be penalised through additional imposition of public policies such as preferential hiring of registered workers by public bodies. In the case of an 'involuntarily exited' worker, the register holds specific information that they have breached the register's quality standard (which by definition may be deemed akin to a 'fitness to practise' threshold without the statutory basis). But for the 'never-been-registered' worker or a 'voluntarily exited' worker, the register does not hold any up-to-date information regarding their quality level, only that they have decided not to formally signal that they are operating above the registers' quality threshold. Therefore, if a voluntary register wishes to make available to consumers information regarding 'involuntarily exited' workers, it will need to consider carefully its policy with regards to 'never-been' registered and 'voluntarily exited' workers.

Where there are concerns about the ability for a segment of consumers to be able to identify particularly high quality workers – i.e. where non-registered workers are not perceived to pose risks to patients, rather patients have differentiated preferences for quality – the register may not want to discourage the use of non-registered workers. In this case, the register exists to provide a greater choice by means of a cost/quality trade-off demanded by consumers with heterogeneous preferences and heterogeneous ability to pay. Non-

registered workers are simply operating at a lower combination of cost and quality. The question is whether the three types of non-registered workers should be treated in the same way. In the case of an 'involuntarily exited' worker, the register holds specific information that they have breached the register's quality standard (albeit a high quality standard – i.e. significantly higher than a threshold akin to a 'fitness to practise' level). A body establishing or already running a voluntary register will need to consider whether the fact that a worker has breached a certain (high) quality standard should be made publicly available and therefore have a bearing on their employment prospects relative to other unregistered workers or whether de-registration (i.e. simply being removed from the register) is sufficient.

5.2. What should an accrediting body do?

5.2.1. Set standards against which voluntary registers will be deemed 'effective'

The primary function of a body tasked with the accreditation of voluntary registers is to aid consumers by signalling those voluntary registers deemed to be 'effective' (in the same way that the primary function of a voluntary register is to aid consumers by signalling those workers deemed to be 'effective'). In other words, the accrediting body will need to make clear what its expectations are in relation to the conditions necessary for a voluntary register to be considered 'effective', as presented in Section 5.1 (i.e. be able to measure quality appropriately, set an appropriate quality threshold level, entry/exit criteria and registration fee, and decide how much information to disclose to consumers/employers). An accrediting body would need to provide guidance or requirements around these conditions for those voluntary registers wishing to become accredited.

In addition to the setting of effective standards against which it will accredit individual registers, there are a number of additional decisions to be made or points to be considered in establishing the appropriate environment in which voluntary registers can thrive:

5.2.2. Decide stance on supply of voluntary registers

As described in Section 4.2, it would be possible for an accrediting body to adopt a *passive* stance in relation to the supply of voluntary registers – that is to wait for registers to be formed or not, as the case may be, and to consider accreditation only for those which are brought forward. However, it would also be possible for an accrediting body to adopt a more *active* policy stance. This could involve, for example, inviting the formation of registers for occupations where there is no statutory regulation but there is concern about lack of quality (caused by the existence of a 'market for lemons') or concern about risks to vulnerable patients/clients. The body could also indicate, for example, a willingness to encourage, say, preferential employment. An accrediting body should be clear on its stance in relation to the supply of voluntary registers and communicate that stance accordingly.

5.2.3. Ensure that there is a genuine public demand for a register

As described in Section 4.1, the public demand for a voluntary register for a particular occupational group is likely to arise where there are concerns about risks to patients or perceptions that there may be deficits in the quality of work. Section 4.2, however, describes how the supply of voluntary registers is likely to depend upon the perceived economic advantage of registration to some or all of the members of the group of workers concerned, and that the rewards of a register (to its members) can be further boosted by inappropriately raising barriers to entry to extract higher wages for registrants. An accrediting body should

therefore take steps to ensure that, where a voluntary register has emerged, there is a genuine public demand for it and that the register is not behaving in a 'protectionist' way.

5.2.4. Consider cost-effectiveness of a voluntary register

The conditions for an 'effective' register that are described in Section 5.1, which in this section form the basis for establishing standards against which registers can be accredited, relate to the operational effectiveness of a register. Whilst operational effectiveness is of primary importance and is likely to be easier to evaluate, the ultimate concern for social welfare is whether a register delivers final outcomes to consumers which are greater than the associated costs.

For this reason, an accrediting body will wish to gather evidence on the relative costs and benefits associated with registered and unregistered workers, so that the additional benefits provided to consumers by registered workers can be evaluated in a way that is consistent with established benchmarks for cost-effectiveness.

In terms of cost, an accrediting body will wish to monitor the relative pay levels of registered and unregistered workers (or the impact of relative pay differences on final product prices).

In terms of effectiveness, they will wish to gather evidence on the improved patient outcomes associated with registered workers, such as improved quantity or quality of life and satisfaction with the service.

In one sense, consumers capable of judging outcomes should be able to make an appropriate trade-off between the (assumed) extra cost of registered as opposed to unregistered workers and the associated extra benefits.

However, it is possible that, although consumers can recognise (with the aid of an effective register) high from low quality, they may not know *how* high (versus low) quality translates into improved outcomes.

In addition, voluntary registers that are used in conjunction with public policies (aimed at encouraging the use of or directing consumers towards registered workers) leave less choice to consumers genuinely interested in trading off lower quality for lower cost. This provides further justification for ensuring that the additional effectiveness of registered workers outweighs the extra cost.

It is clear that measuring the extent to which registered workers deliver improved patient outcomes is more difficult than measuring whether registered workers are more highly qualified than unregistered workers (see Box 3). This is particularly clear in the case of non-frontline staff, where the link between quality of inputs and final outcomes is less direct. However, since effective registers are aimed at improving social welfare, a body responsible for accrediting voluntary registers can play a long-term role in building an evidence base around improved patient outcomes associated with registered workers so that registers are not just accredited for their operational effectiveness but also for their ability to deliver better care for patients at reasonable cost.

An accrediting body may wish to combine a static approach to judging cost effectiveness – i.e. observing relative pay differentials and associated outcomes at a particular point in time, as described above – with concern for the dynamic impacts associated with the establishment of a voluntary register in a particular area. This might involve monitoring the supply of particular staff groups over time – e.g. those entering and leaving the workforce – and determining the extent to which observed changes in the size and composition of the

workforce are: a) influenced by the establishment of a voluntary register; and b) consistent with the preferences of consumers.

5.2.5. Be aware of the issues relating to monopoly or competition amongst registers

The danger posed by monopoly registers of workers – most obviously relevant to statutory registers but, to a lesser extent, a risk also associated with voluntary registers – has already been discussed in this report (see Sections 3.4.2.5 and 5.1.6). To the extent that a monopoly register pursues the interests of its existing members, it will have an incentive to create and exploit its monopoly power by restricting entry to the register before the point at which demand and competitive supply prices are equated. Monopoly registers, therefore, will be in a stronger position than competing registers to restrict entry and to exploit monopoly power on behalf of their members.

On the evidence of existing voluntary registers of health and social care workers (see Section 2.2.2), single registers within a particular occupational area appear to be more prevalent than multiple registers, implying that the abuse of monopoly power is likely to be the primary concern. However, an accrediting body will need to recognise that there are complex issues relating to monopoly and competition among registers. Competition can take a variety of forms:

- *Price competition:* where registration bodies compete on their registration fee but use the same disclosure rules/absolute threshold levels and have similar quality of 'testing technology';
- *Compete on disclosure rule:* where registration bodies differentiate themselves by the precision or nature of their disclosure of quality information; and
- *Compete on absolute threshold level:* where registration bodies compete on formulating standards at cost/quality levels that best meet consumer preferences.

The theory on competition among registration bodies is still evolving and is not clear-cut. Indeed the interplay between competition, reputation of registration bodies, registration fees and quality of 'testing technology' is complex. However, the relevant theory relating to competition amongst registers is summarised below.

5.2.5.1. Price competition

It may seem intuitive that competition between registration bodies could drive down the cost of registration for workers. However, this conjecture is challenged by both Strausz (2005) and Myslivecek (2008) in different ways.

Strausz (2005) who, as has been mentioned above, concludes that the temptation of a register to accept a bribe is reduced if the price of registration is high, goes on to show that the lowest possible price consistent with honest registration is attainable only in the case where one register has the entire market – i.e. a monopoly. Strausz concludes that, while competition may well be expected to drive down the price of registration, since competing registers are required to share the market and thereby reduce the size of future gains from honest registration, the relative attraction of dishonest registration (or capture) increases.

Myslivecek (2008) considers competition where registration is imperfect. As described above, he argues that registration fees should not be too low when registration is imperfect since this low fee allows some low quality workers to become registered due to the imperfect testing technology. Myslivecek goes on to argue that "too much" competition reduces fees to a level that can encourage the entry of cheating producers (i.e. low quality workers that want

to pass themselves off as high quality workers). Even though high quality producers benefit from a lower fee, the overall welfare effect is not positive.

5.2.5.2. Competition on disclosure rule

It may also appear intuitive that competition between registration bodies could lead to more refined information revelation. However, Klee (2010), as mentioned above, describes how more refined information revelation is not always welfare maximising since, whilst it grants workers more scope to signal quality, this is balanced by the incentive that precise certification provides to workers to excessively invest in human capital as a signalling device. Therefore, it is not clear that competition on the refinement of information revelation is beneficial from a welfare point of view.

5.2.5.3. Competition on absolute threshold level

Where a monopoly register operates a threshold registration scheme, workers that aim at a higher quality standard may have difficulty in communicating that fact to consumers. Rival or competing registration schemes may therefore emerge that operate at differing threshold/price combinations. However, Ogus (1995) identifies that where consumers are not able to identify the differential impact of competing regimes, price variance will prevail over quality variance (in terms of the absolute level of registration schemes' threshold) in determining consumer choice and a 'race to the bottom' may ensue, leaving predominantly low-cost/lax-standards combinations available to consumers. Supplier rents (i.e. the ability of workers to earn more than the price for average quality) may disappear but they will be replaced by significant welfare losses – the inability of at least some consumers to choose higher-cost/stricter-standards combinations.

To summarise, the literature on competition between registers suggests that monopoly registers may do better than competing registers in setting adequate levels of fees to ensure 'separation' and in staying honest. However, monopoly registers will be in a stronger position to restrict entry and to exploit monopoly power on behalf of their members. It may be beneficial, therefore, for an accrediting body to take an explicit anti-protectionist stance. Or, alternatively, if it sees the abuse of monopoly power by registers as the responsibility of other public agencies, it should say so.

6. Concluding remarks

The aim of this report has been to inform those tasked with designing a process for accrediting voluntary registers of health and social care workers.

6.1. Summary

First of all, high level information about the health and social care workforce was presented. A large number of workers fall outside direct statutory registration – amounting to some 2.5 million individuals or almost two thirds of the entire workforce.

Secondly, the theoretical literature on statutory registers, voluntary registers and other market-based mechanisms was reviewed, with a view to identifying the characteristics of workers for whom a voluntary register is likely to be of most value to consumers and devising a set of criteria for judging the effectiveness of voluntary registers.

Finally, these criteria for effective registers were proposed, alongside other suggested responsibilities for a body accrediting voluntary registers, as the standards against which registers should be assessed.

6.2. What can voluntary registers achieve?

This report has shown that voluntary registers can help to address the problem of information asymmetry – where workers know the quality of care that they provide but consumers do not.

However, some of the debate around the purpose of voluntary registers has so far focused on protection against risks. For example, the introduction to Enabling Excellence makes clear that 'statutory action should not be the first resort in dealing with risks arising from professional activity'[11]. The implication is that voluntary registers, particularly those who are successful in achieving accreditation, should now be considered as the preferred option. Furthermore, early documents from CHRE relating to the future design of a system of Assured Voluntary Registers, describe the motivations and standards of voluntary registers in terms of public protection against risks[12].

In the debate about what voluntary registers can achieve it is important to distinguish between two types of end-user within the context of health and social care. The first type has a need for health and/or social care, but their need does not affect their capacity to interpret and act on information. Where an asymmetry of information exists, this is the type of end-user – either directly or through an agent acting on their behalf – who is likely to benefit most from the information conveyed by an effective voluntary register.

In the case of the second type of end-user, however, the patient's need for health and social care compromises their capacity to interpret and act on information, placing them in a particularly vulnerable position. Such circumstances may warrant more paternalistic intervention than those aimed simply at correcting an information asymmetry. It may be possible for voluntary registers to be applied to address such situations, but only alongside

[11] Enabling Excellence – Autonomy and Accountability for Healthcare Workers, Social Workers and Social Care Workers; Presented to Parliament by the Secretary of State for Health by Command of Her Majesty; February 2011; paragraph 1.8, p. 8.

[12] Discussion Paper: Early thinking on CHRE's potential role in operating a voluntary register scheme; Council for Healthcare Regulatory Excellence; January 2011; paragraph 4.3, p. 4.

public policies aimed at encouraging the use of registered workers – through the state's significant role as an employer of health and social care workers or as a major commissioner of health and social care services. This is because, in contrast to statutory registers, unregistered workers are still permitted to practise.

6.3. Informing the design of an accreditation scheme for voluntary registers

The body charged with accrediting voluntary registers (the CHRE or the PSA, as it will become known from November 2012) has been preparing and consulting on the process that they intend to adopt, including the issuing of draft standards against which registers will be assessed[13].

These proposals suggest that the CHRE will be looking for: a significant degree of separation in quality between workers on and off a register supported by on-going promotion of professionalism among registrants; entry and exit procedures; and, more generally, by good governance of registers. It can be inferred that the CHRE will be on the lookout for gaming and for antisocial behaviour, such as 'capture' by the profession concerned and the taking of bribes. It is also clear that the CHRE is alert to the need to develop stronger quality measurement, including measurement of outcomes, especially for occupations where the evidence base is weak.

The theoretical content of this report suggests that these early proposals are well-founded.

However, there are some issues highlighted in this report which do not currently feature in CHRE's early proposals – or, at least, not those that have been published so far.

- As well as allowing existing registers to apply for accreditation as and when they see fit, CHRE may wish to signal their desire for voluntary registers to be established for particular occupational groups where none currently exist, depending on the characteristics of these groups and the perceived value to consumers of establishing effective voluntary registers. Such a signal may be helpful to a nascent register seeking to establish a reputation for longevity and permanence, making it more attractive for potential registrants having to justify up-front expenditure on education and training.
- While the current CHRE proposals suggest that they will assess the link between a particular register's standards and a defined body of knowledge or evidence, and that they are concerned about how well registers confer value to consumers[14], there appears to be little mention of assessing added effectiveness alongside additional cost – e.g. in the form of higher labour costs and/or final product prices.
- There may also be a need for the PSA to further consider the complex issues relating to monopoly and competition among registers. It is possible that an anti-protectionist stance is implicit in the plans that CHRE has announced for scrutinising the governance arrangements in registers. If so, this stance should be made explicit. Alternatively, it is possible that CHRE see abuse of monopoly power by registers as the responsibility of other public agencies. Again, if so, it would be better to say so.
- Finally, CHRE's January 2012 Council Paper, relating to the proposed model for the accreditation scheme, refers to registers having to demonstrate that they are 'removing people who are unfit to practise and ensuring that all reasonably

[13] Accreditation standards for organisations that hold voluntary registers for health and social care occupations – Draft for consultation; Council for Healthcare Regulatory Excellence; April 2012.
[14] Accreditation standards for organisations that hold voluntary registers for health and social care occupations – Draft for consultation; Council for Healthcare Regulatory Excellence; April 2012; standards C.4 and C.7 on p. 11.

practicable steps are taken to restrict their future practise[15]'. It would not be possible, by definition, for a voluntary register's exit criteria to define 'fitness to practise'. Rather, a voluntary register's exit criteria can only be couched in terms of a breach of the quality level required for on-going registration. In addition, further thought may need to be given to whether a distinction is made – in terms of the information conveyed to consumers and/or other regulatory bodies – between those registrants who are involuntarily as opposed to voluntarily removed from a register.

[15] Voluntary Registers – proposed model for the accreditation scheme; Council for Healthcare Regulatory Excellence; Council meeting, 26th January 2012; Paper 7; paragraph 2.6, p. 2.

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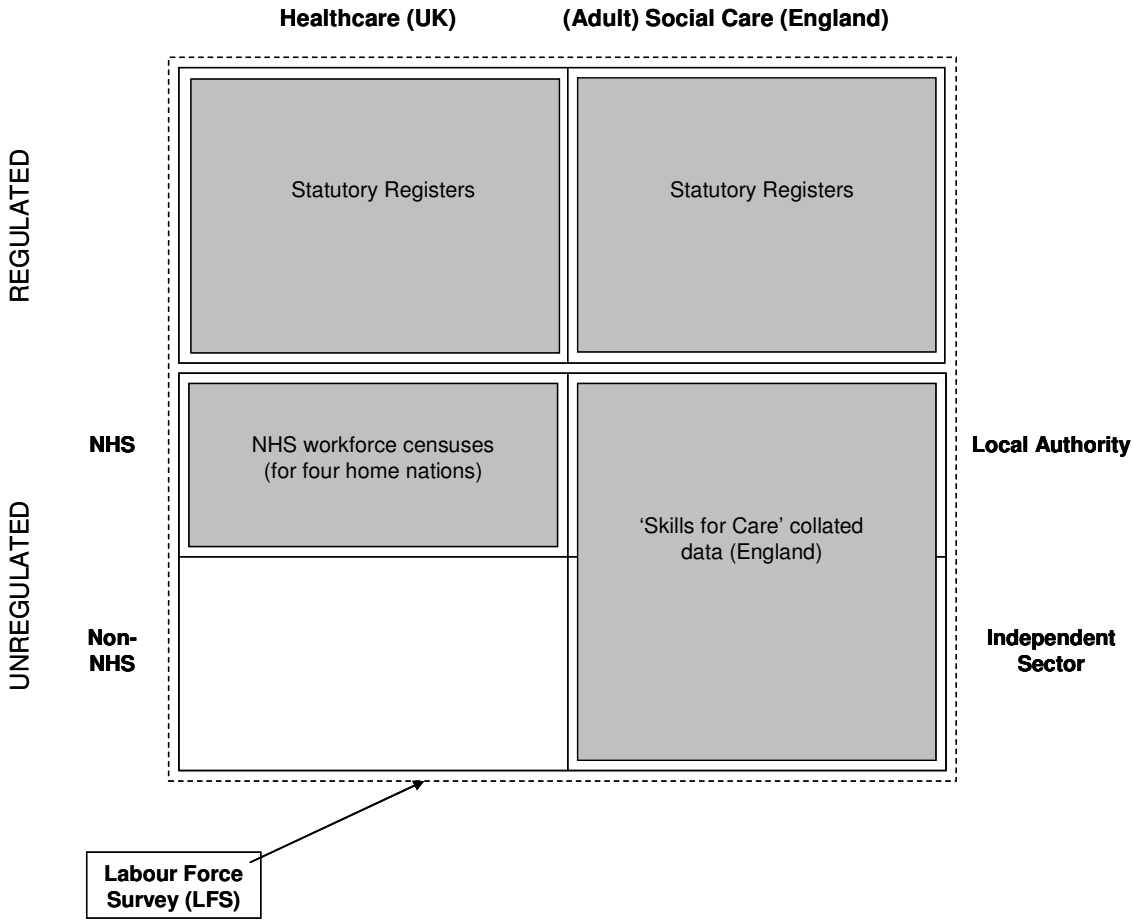
Annex A. Mapping the UK health and social care workforce in the UK: methodology

There is no single designated source of figures relating to the health and social care workforce. It is therefore necessary to draw on a variety of data sources in order to provide the mapping. Figure A1 and the narrative below provide an overview of the methodology used.

Figure A1: overview of methodology used to map the unregulated health and social care workforce



(Note that this diagram is purely schematic; the sizes of the boxes do not represent the sizes of the various workforce groups.)

Regulated health and social care workforce:

- Data collected by each of the statutory regulators were used to map the regulated health and social care workforce. (Mapping the regulated health and social care workforce is straightforward as compared to the unregulated workforce since each of the statutory regulators must maintain a register of licensed professionals, whether they work in the NHS, Local Authority or private sector.) See Tables A2 and A3 for a breakdown of this data.

Unregulated health and social care workforce:

- Data from the NHS workforce censuses collected by the four home nations were used to map the UK unregulated NHS healthcare workforce. See Table A4 for a breakdown of this data.
- Data collated by 'Skills for Care' were used to map the English unregulated adult social care workforce across local authorities and the independent sector. This data itself draws on a number of data sources including returns from Local Authorities, the Labour Force Survey and the Minimum Data Set for Social Care. See Table A5 for the breakdown.
- There is no census data or data collection process that directly covers the non-NHS unregulated healthcare workforce. Also, the NHS censuses and 'Skills for Care' data sources may potentially leave some staff unaccounted for. An attempt to account for these 'missing' staff can be made using the Labour Force Survey (LFS). The LFS is a survey rather than a census and the scope of the survey covers all workers in the UK rather than just those within the health and social care sector. The LFS can be used to provide an estimate of the size of the total health and social care workforce and by comparing this with the estimates made in the steps above, the residual can be used to estimate the non-NHS unregulated healthcare workforce (and potentially any unregulated social care workforce that has not been accounted for). For a detailed description of this part of the methodology please refer to Table A6 onwards.

Table A2: Healthcare regulated workforce

Regulator	**Number of Registrants (as at March 2010)**
General Chiropractic Council (GCC)	2,607
General Dental Council (GDC)	94,023
General Medical Council (GMC)	231,232
General Optical Council (GOC)	24,295
General Osteopathic Council (GOsC)	4,250
Health Professions Council (HPC)	205,311
Nursing and Midwifery Council (NMC)	665,599
General Pharmaceutical Council (GPhC)	58,664
Pharmaceutical Society of Northern Ireland (PSNI)	2,060
Total	**1,288,041**

Table A3: Social care regulated workforce

Regulator	**Number of Registrants**
General Social Care Council (GSCC)	105,000
Total	**105,000**

Table A4: NHS unregulated healthcare workforce

Headcount, 2010[16]	**NHS workforce (UK)**					
	England	**Wales**	**Scotland**	**Northern Ireland**	**"Other"**	**Total**
Nursing and midwifery assistants (A)	205,018	20,454	18,640	4,678		248,790
Scientific assistants (B)	29,832	2,316	1,770	1,441		35,359
AHP assistants (C)	19,322	1,090	2,198	612		23,222
Pharmacy assistants (D)	4,015	245	343	159	56,000[17]	60,762
Dental assistants (E)	1563	95	560	5		2,223
Paramedic assistants (F)	14,958	470	2,343	616		18,387
Administration (G)	334,539	14,599	33,136	11,532	26,243[18]	420,049
Hotel and estates (H)	67,789	1,148	15,888	6,750		91,575
Managerial (I)	41,991	2,454	1,255	903	10,806[19]	57,409
Total	719,027	2,871	76,133	6,696	93,049	**957,776**

Table A5: Unregulated social care workforce (LA and independent sector)

Headcount, 2010[20]	**(Adult) Social Care Workforce (England)**				
	Residential care	**Domiciliary care**	**Day care**	**Community services**	**Total**
Direct Care and Support Workers (J)	403,725	597,590	93,520	97,440	1,192,275
Managerial/ supervisory (K)	59,005	35,615	26,155	39,750	160,525
Admin/ancillary (L)	117,265	18,575	33,625	55,060	224,525
Total	579,995	651,780	153,300	192,250	**1,577,325**

[16] Or nearest available year to 2010
[17] Dispensing assistants and Medicines Counter assistants (1998); source: Pharmacy Workforce in the new NHS, DH Discussion Paper, September 2002, Annex A
[18] Receptionists in Dental Practices; estimate derived from: Business Trends Survey, Workforce and practice profile report, May to July 2010, British Dental Association – Figures 31 and 32; General Dental Council: Annual report and accounts 2009 – p. 12
[19] Practice managers in Dental Practices; estimate derived from: Business Trends Survey, Workforce and practice profile report, May to July 2010, British Dental Association – Figures 31 and 32; General Dental Council: Annual report and accounts 2009 – p. 12
[20] Or nearest available year to 2010

Using the Labour Force Survey (LFS) to estimate the size of the total health and social care workforce

The LFS is a survey (rather than a census) and covers all workers in the UK (rather than just those within the health and social care sector). The LFS categorises workers according to their occupation (using the Standard Occupational Classification (2000) – referred to as a SOC code) and the industry that they work within (using the Standard Industrial Classification (2007) – referred to as a SIC code). It is possible to use the SOC and SIC codes to isolate, as far as possible, those workers employed within the health and social care sector. A grossing factor can then be applied to the survey data in order to gross the data up to the UK population.

However, isolating the health and social care sector is not entirely straightforward. Each occupation code (SOC code) covers a group of related occupations which are not separable in the data. Some SOC codes contain solely occupations within the health and social care sector and some SOC codes contain a mixture of occupations within and outside of the health and social care sector. The industry codes (SIC codes) can be broken down to a more granular level; however, there are some industry codes that are clearly within the health and social care sector and some industry codes that may be classed as being part of a 'wider' health and social care sector.

However, by cross-tabulating the occupation and industry codes it is possible to isolate, to a great extent, those workers that may be deemed as working within the health and social care sector.

The occupation codes (SOC codes) considered to be either 'wholly' or 'partly' related to the health and social care sector are as follows:

Table A6: Wholly related SOC codes

Code	Description
118	*Health And Social Services Managers*
1181	Hospital and health service managers
1182	Pharmacy managers
1183	Healthcare practice managers
1184	Social services managers
1185	Residential and day care managers
221	*Health Professionals (see note below)*
2211	Medical practitioners
2212	Psychologists
2213	Pharmacists/pharmacologists
2214	Ophthalmic opticians
2215	Dental practitioners
2216	Veterinarians[21]
321	*Health Associate Professionals*
3211	Nurses
3212	Midwives
3213	Paramedics
3214	Medical radiographers
3215	Chiropodists
3216	Dispensing opticians
3217	Pharmaceutical dispensers
3218	Medical and dental technicians
322	*Therapists*
3221	Physiotherapists
3222	Occupational therapists
3223	Speech and language therapists
3229	Therapists n.e.c.
323	*Social Welfare Associate Professionals*
3231	Youth and community workers
3232	Housing and welfare officers

[21] Please note that the 'Health Professionals' occupation group effectively becomes 'Wholly related' by excluding SIC code 75000 'Veterinary activities'.

Table A7: Partly related SOC codes

Code	Description
244	*Public Service Professionals*
2441	Public service administrative professionals
2442	Social workers
2443	Probation officers
2444	Clergy
611	*Healthcare And Related Personal Services*
6111	Nursing auxiliaries and assistants
6112	Ambulance staff (excluding paramedics)
6113	Dental nurses
6114	Houseparents and residential wardens
6115	Care assistants and home carers

The industry codes (SIC codes) considered to be part of the 'core' or part of the 'wider' health and social care sector are as follows:

Table A8: 'Core' health and social care SIC codes

Code	Description
86101	Hospital activities
86102	Medical nursing home activities
86210	General medical practice activities
86220	Specialist medical practice activities
86230	Dental practice activities
86900	Other human health activities
87100	Residential nursing care activities
87200	Residential care activities for learning disabilities, mental health & substance abuse
87300	Residential care activities for elderly and disabled
87900	Other residential care activities
88100	Social work activities without accommodation for the elderly and disabled
88990	Other social work activities without accommodation not elsewhere classified

Table A9: 'Wider' health and social care SIC codes

Code	Description
21100	Manufacture of basic pharmaceutical products
21200	Manufacture of pharmaceutical preparations
32500	Manufacture of medical and dental instruments and supplies
47730	Dispensing chemist in specialised stores
47740	Retail sale of medical and orthopaedic goods in specialised stores
47741	Retail sale of hearing aids in specialised stores
47749	Retail sale of medical and orthopaedic goods (other than hearing aids) not elsewhere classified, in specialised stores
47782	Retail sale by opticians
84120	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security

The cross-tab used to best isolate those deemed to be working within the health and social care sector is as follows:

- Occupations 'wholly' related to the health and social care sector, irrespective of the industry.
- Occupations 'partly' related to the health and social care sector, and administrative occupations where the industry is within the 'core' or 'wider' health and social care sector.
- Any other occupations within the 'core' or 'wider' health and social care sector with a significant count (i.e. any other occupations that feature heavily in the health and social care industry).

The estimate of the total health and social care workforce that this methodology provides is as follows:

Table A10: Estimates of total health and social care workforce

Workforce group	**SOC codes**	**SIC codes**	**Approximate headcount (main job) 2009/10***
Health and social services managers	118	Any	300,000
Health professionals	221	Any	350,000
Health associate professionals	321	Any	745,000
Therapists	322	Any	165,000
Social welfare associate professionals	323	Any	290,000
Public service professionals	244	'Core' and 'Wider' health and social care SIC codes	125,000
Healthcare and related personal services	611	'Core' and 'Wider' health and social care SIC codes	1,040,000
Other	Any SOC code where headcount greater than 7,450	'Core' and 'Wider' health and social care SIC codes	*1,100,000
Total	**-**	**-**	**4,115,000**

*Source: Two mutually exclusive quarters of Labour Force Survey data (Jul-Sep 2009 & Oct-Dec 2010) extrapolated to UK working population

By comparing this estimate of the total health and social care workforce (4,115,000) with the sum of the estimates of the regulated healthcare workforce (1,288,041), the regulated (adult) social care workforce in England (105,000), the NHS unregulated healthcare workforce (957,776) and the unregulated (adult) social care workforce in England (1,577,325), the residual of **186,858** indicates that the group of 'missing' staff (i.e. the unregulated non-NHS healthcare workforce and any other missing staff) may not be large.

For information, a breakdown of those occupations that constitute the 'other' category in the table above are as follows:

Table A11: Breakdown of 'other' categories in total health and social care workforce by Standard Occupational Classification (SOC) code

Code	Name	Approximate headcount
421	Secretarial and Related Occupations	205,000
923	Elementary cleaning occupations	110,000
415	Administrative Occupations: General	85,000
411	Administrative Occupations: Government and Related Organisations	80,000
356	Public services and other associate professionals	70,000
113	Functional managers	60,000
922	Elementary personal services occupations	60,000
413	Administrative Occupations: Records	55,000
412	Administrative Occupations: Finance	40,000
211	Science professionals	35,000
612	Childcare and related personal services	35,000
543	Food preparation trades	30,000
623	Housekeeping occupations	30,000
115	Financial institution and office managers	25,000
111	Corporate managers	20,000
311	Science and Engineering technicians	15,000
353	Business and finance associate professionals	15,000
821	Transport drivers and operatives	15,000
242	Business and statistics Professionals	15,000
912	Elementary construction occupations	15,000
354	Sales and related associate professionals	10,000
123	Managers in other service industries	10,000
721	Customer service occupations	10,000
711	Sales assistants and related cashiers	10,000
231	Teaching professionals	9,000
414	Administrative Occupations: Communications	9,000
112	Production managers	8,000
313	IT service delivery occupations	8,000
213	ICT professionals	8,000
122	Managers in hospitality and leisure	8,000
	Total 'other'	**1,100,000**

Annex B. List of statutory regulators of health and social care practitioners in the UK

Statutory regulator	Profession covered
General Chiropractic Council (GCC)	Chiropractors
General Dental Council (GDC)	Dentists Dental hygienists Dental therapists Clinical dental technicians Orthodontic therapists Dental nurses Dental technicians
General Medical Council (GMC)	Doctors
General Optical Council (GOC)	Dispensing opticians Optometrists
General Osteopathic Council (GOsC)	Osteopaths
Health Professions Council (HPC)	Arts therapists Biomedical scientists Chiropodists Clinical scientists Dieticians Hearing aid dispensers Occupational therapists Operating department practitioners Orthoptists Orthotists Paramedics Physiotherapists Podiatrists Practitioner psychologists Prosthetists Radiographers Speech and language therapists
Nursing and Midwifery Council (NMC)	Nurses Midwives
General Pharmaceutical Council (GPhC)	Pharmacists Pharmacy technicians
Pharmaceutical Society of Northern Ireland (PSNI)	Pharmacists
General Social Care Council (GSCC) (England only)	Social Workers

Annex C. List of existing voluntary registers

	Voluntary Register	Website	Included in detailed review?
Psychotherapy, therapy, counselling:			
1	British Psychoanalytic Council (BPC)	www.psychoanalytic-council.org	✓
2	United Kingdom Council for Psychotherapy (UKCP)	www.psychotherapy.org.uk	✓
3	British Association of Counselling & Psychotherapy	www.bacp.co.uk	
4	National Council of Psychotherapists	http://thencp.org	
5	The UK Association for Humanistic Psychology Practitioners (UKAHPP)	www.ahpp.org	
6	The Counselling Society	www.counsellingsociety.com	
7	The National Hypnotherapy Society (also affiliated (?) to Counselling Society?)	www.nationalhypnotherapysociety.org	
8	Association of Christian Counsellors	www.acc-uk.org	
9	Genetic Counsellor Registration Board	www.gcrb.org.uk	
10	British Association of Play Therapists	www.bapt.info	
11	Play Therapy UK	www.playtherapy.org.uk	
12	Registration Council for Clinical Physiologists (RCCP)	www.rccp.co.uk	✓
Scientific:			
13	Voluntary Register of Clinical Technologists (VRCT)	www.vrct.org.uk	✓
14	Committee for the Accreditation of Medical Illustration Practitioners (CAMIP)	www.camip.org.uk	✓
15	Association of Anatomical Pathology Technologists (AAPT)	www.vrcouncil.org/pages/aapt.html	✓
16	Association of Ophthalmic Science Practitioners (AOSP)	www.vrcouncil.org/pages/aosp.html	✓
17	British Association for Tissue Banking (BATB)	www.vrcouncil.org/pages/batb.html	✓
18	British Association of Retinal Screeners (BARS)	www.vrcouncil.org/pages/bars.html	✓
19	Society of Critical Care Technologists (SCCT)	www.vrcouncil.org/pages/scct.html	✓
Complementary, alternative or natural medicine:			
20	Complementary & Natural Healthcare Council (CNHC)	www.cnhc.org.uk	✓
21	Chinese Medical Institute and Register (CMIR)	www.cmir.org.uk	✓
22	Association of Systematic Kinesiology	www.systematic-kinesiology.co.uk	

	Voluntary Register	Website	Included in detailed review?
23	British Acupuncture Council	www.acupuncture.org.uk	
24	Council for Anthroposophic Health and Social Care (CAHSC)	www.cahsc.org	
25	General Regulatory Council for Complementary Therapies	www.grcct.org	
26	Society of Homeopaths	www.homeopathy-soh.org	
Allied Health Professions:			
27	British Psychological Society	www.bps.org.uk	
Other:			
28	Physician Assistant Managed Voluntary Register (PA MVR)	www.paregister.sgul.ac.uk	✓
29	Association of Physicians' Assistants (Anaesthesia) (APA(A))	www.anaesthesiateam.com	✓
30	UK Council for Health Informatics Professions (UKCHIP)	www.ukchip.org	✓
31	UK Public Health Register (UKPHR)	www.publichealthregister.org.uk	✓
32	Register for Foot Health Practitioners (RFHP)	www.footreg.org	✓
33	UK Voluntary Register of Nutritionists (UKVRN)	www.associationfornutrition.org	✓
34	Treatments You Can Trust (injectable cosmetics)	www.independenthealthcare.org.uk	
35	British Association of Plastic Surgeons	www.baaps.org.uk	
36	UK Board of Hospital Chaplains	www.ukbhc.org.uk	

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