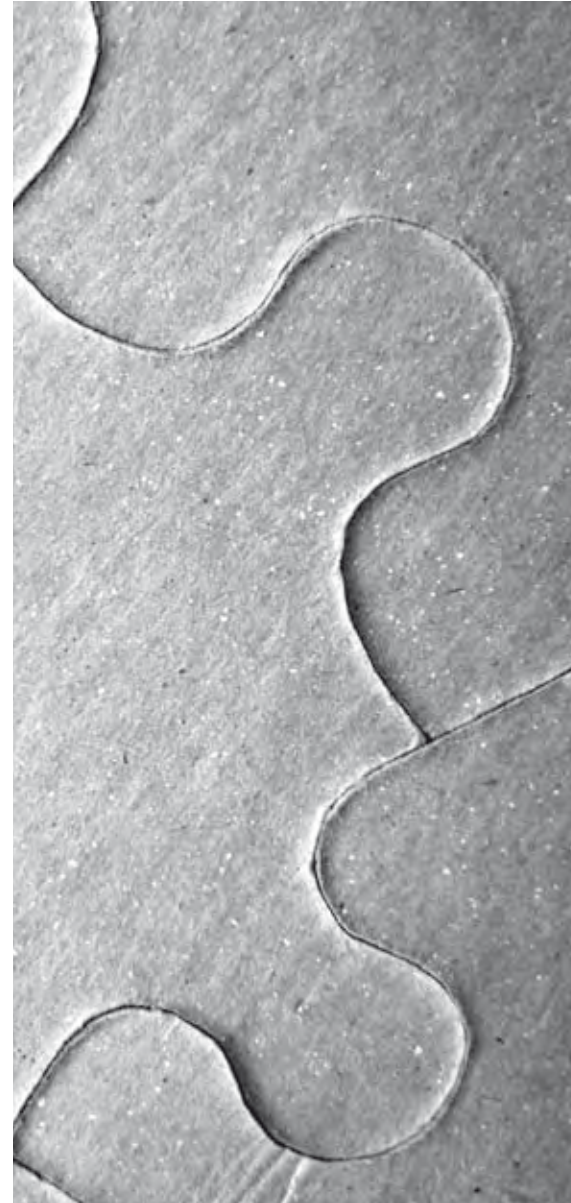
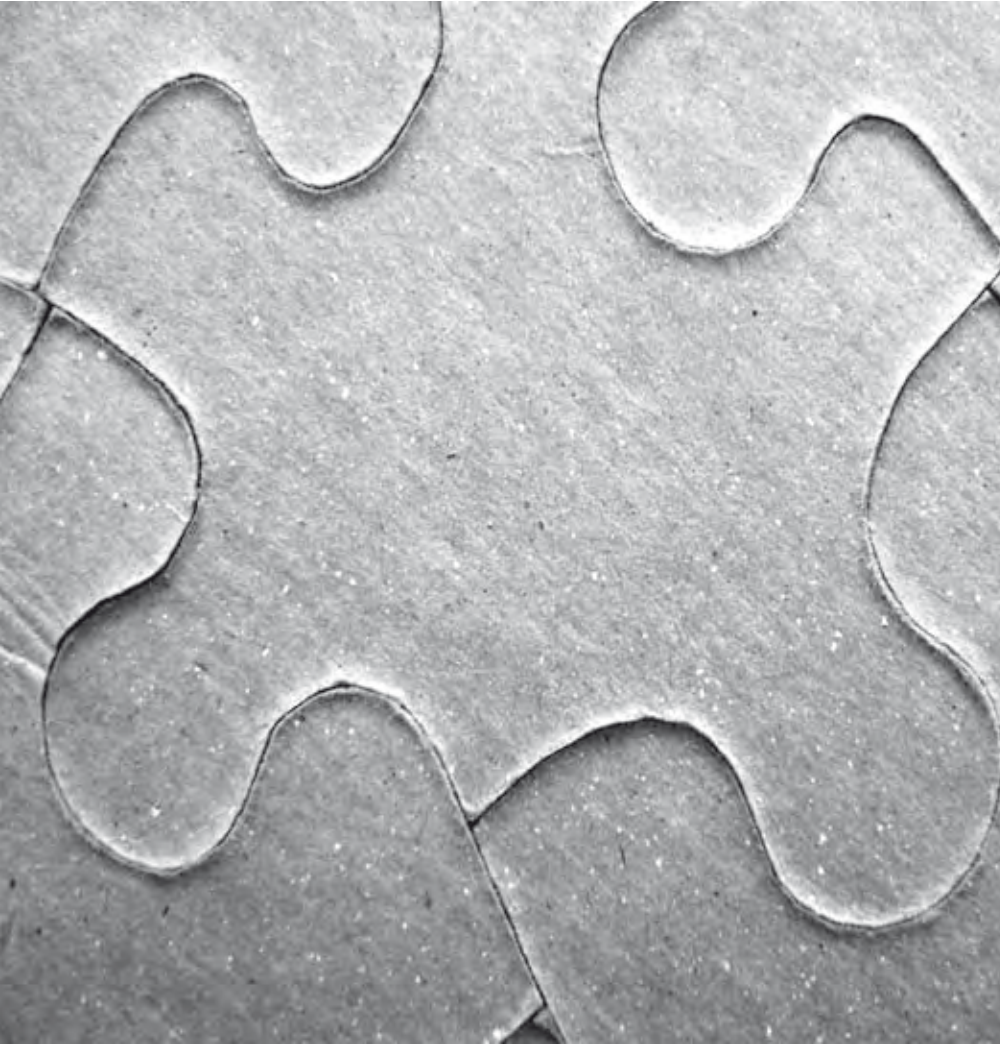


July 2010



## **Resource Allocation, Financing and Sustainability in Health Care**

Evidence for the Expert Group on  
Resource Allocation and Financing  
in the Health Sector

(Volume II)



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**The Economic and Social Research Institute**

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**PART 4**

Financing Health Care: Theory  
and International Evidence

**CHAPTER 9**

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# Chapter 9

## Methods of Financing Health Care

### 9.1 INTRODUCTION

This chapter examines financing methods for health care. Ultimately, all resources available to finance health care come from individuals. There are a number of ways in which these resources can be generated, ranging from direct out-of-pocket payments at the point of use, to more indirect methods such as tax contributions, insurance contributions etc. Thus, the focus in this chapter (and in Chapter 10) is on the flow of resources from individuals to providers (i.e. direct out-of-pocket payments) and from individuals to financial intermediaries (e.g. the Government, health insurance bodies etc.) as illustrated in the complete resource flow (Figure 1.1 in Chapter 1).

As discussed in Chapter 1, health-care financing is one part of the complete resource flow in the health-care system and decisions in one part of the system can impact on and interact with other components of the system. There are important decisions to be made in any health-care system on how resources for health care are generated and the approach taken can be more or less supportive of effective resource allocation and integrated health-care delivery. The purpose of this chapter is to examine international evidence on the different methods of financing for health care using a specific set of assessment criteria.

The major contribution mechanisms for any health-care financing system include tax revenues collected by the Government, social health insurance contributions, private health insurance and out-of-pocket payments. Health-care financing systems diverge in the mix of these different contribution mechanisms and there is no single financing model that is pursued internationally. In the international health-care financing literature, systems have tended to be grouped according to the dominant source of finance: tax-based systems (e.g. Australia, Canada, Ireland, New Zealand, Sweden and UK); social health insurance systems (e.g. Germany); private systems (e.g. US) (see Country Profiles). However, the distinction is not clear cut. For example, in the US, government resources for the Medicare and Medicaid programmes, for tax relief on private health insurance and other programmes represent a large proportion of total health-care expenditure (see Country Profiles: United States). In social health insurance systems, there are usually some government (tax-based) subsidies granted to the insurance funds and/or to health care providers. In light of these overlaps within systems, the approach adopted here is to examine health financing issues at the level of the specific contribution

mechanisms and this is consistent with other international health financing comparative analysis (e.g. Thomson *et al.*, 2009).

The four major contribution mechanisms of tax, social health insurance, private health insurance and out-of-pocket payments (or user fees) are assessed here against the following set of criteria:

- acceptability and transparency;
- equity in financing (i.e. payment for health care that is on the basis of ability to pay, and that is separate from decisions on how to deliver health care, as discussed in Chapter 1);
- stability (i.e. funds not too prone to annual variation);
- low administrative costs;
- appropriate incentives to service providers and users (to align with effective resource allocation and to support integrated health-care delivery).

These criteria are based on international policy goals for health-care financing (e.g. Normand *et al.*, 2009; Thomson *et al.*, 2009). The criteria are relevant when considering how consistent available financing mechanisms are with the other components of the overall resource flow in a health-care system. For example, health resource mechanisms that are acceptable and stable can support sustainable financing for health care. Resource mechanisms that give a transparent link between the packages of services that are available and the funding of these services facilitate greater accountability and efficiency in the resource allocation process. Resource contribution mechanisms can also have differing incentive effects on individual behaviours in the system (e.g. payments that are required at the point of health care use can discourage utilisation). It is important to understand the likely incentive effects of the different mechanisms on health-care users in order to identify their degree of alignment with incentives facing other actors in the system (e.g. health-care providers). As highlighted in Chapter 1, for integrated health-care delivery, financial incentives need to be aligned across all actors in the system. On the basis of the assessment in this chapter of the individual resource contribution mechanisms along these dimensions using international evidence, Chapter 10 will highlight specific features in the Irish health-care financing system that pose challenges, particularly in terms of supporting effective resource allocation and integrated health-care delivery.

Section 9.2 provides an overview of the key features of the health-care financing systems in each of the 8 comparator countries. Section 9.3 assesses the tax and social health insurance contribution mechanisms against the specified criteria, and the private mechanisms are assessed in Section 9.4. Section 9.5 outlines issues and policy implications arising from the discussion and a summary of the chapter is presented in Section 9.6.

## 9.2 INTERNATIONAL FINANCING METHODS

The following description summarises the mix of health financing contribution mechanisms that is used in each of the 8 comparator countries. As outlined in Chapter 1, the Irish system is predominantly financed by public tax resources, with a smaller proportion of out-of-pocket payments and private health insurance resources.

In England, national tax revenues account for the largest proportion of total health-care financing. Out-of-pocket payments are required for co-payments on pharmaceuticals, dental and optical care. Supplementary private health insurance is purchased by a small proportion of the population. In Canada, provincial taxes provide the main source of health-care financing. Out-of-pocket payments are required for pharmaceuticals and other private health-related goods and services. Private health insurance provides cover for services not covered by public funding, and is a dominant source of funding for dental care and prescription drugs. In New Zealand, national tax revenues also account for the main source of health-care financing and out-of-pocket payments are required for primary care (e.g. general practitioner (GP) care, pharmaceuticals, dental care). Less than 40 per cent of the population purchase complementary private health insurance. In Australia, federal and state taxes provide the main source of health-care financing. Out-of-pocket payments are required for co-payments (e.g. pharmaceuticals, doctor visits) and direct payments (e.g. dental care). More than 40 per cent of the population hold private health insurance (e.g. to cover private treatment and accommodation). In Sweden, local tax is the main source of health-care financing. Additional mandatory social health insurance contributions are used to subsidise the cost of prescribed drugs and dental care and other exemption schemes. Out-of-pocket co-payments are required for most health-care services. Less than 3 per cent of the population hold supplementary private health insurance.

In Germany, it is mandatory for all citizens to purchase health insurance, either social or private. Social health insurance is the major source of health-care financing with approximately 200 sickness funds in 2009. All individuals earning below a specified gross income level are required to purchase social health insurance. These contributions are pooled in a centralised 'Health Fund' together with a tax-based government subsidy (to cover the cost of children's insurance). Out-of-pocket payments are required to cover co-payments and charges for benefits that are not covered by the social or private health insurance scheme. Private health insurance is purchased by those who are not eligible or who opt out of the social health insurance scheme. Supplementary private health insurance to cover extra services, and complementary private health insurance to cover co-payments, are also available.

In the US, federal and state taxes are used to finance health care for eligible low-income adults and children (Medicaid) and for people aged 65 and older (Medicare). Private health insurance is the main source of health-care funding for more than 60 per cent of the population (and with the roll-out of health-care reform, private health insurance will become more affordable for lower income households). Out-of-pocket payments are required to cover co-payments.

In the Netherlands, health care is now mainly funded by compulsory health insurance contributions and premiums. All legal residents are required to purchase health insurance from private health insurers. This is financed by income-related contributions and by flat rate insurance premiums. Out-of-pocket payments are required for insurance cost-sharing. Government tax resources are mainly used to subsidise the mandatory health insurance scheme (e.g. payment of the premiums for those under the age of 18). A high proportion of individuals take out complementary voluntary private health insurance.

The above overview highlights two key points. First, there is wide variation in how the different sources of health-care financing are used in each system. It is important to refer to the detailed country profiles to understand, for example, the range of services for which out-of-pocket co-payments may or may not be required in each country and the scope of exemption schemes. Second, the mix of resources is becoming increasingly complex in health systems. Thus, as outlined in Section 9.1, it is useful in this chapter to concentrate on the advantages and disadvantages of the individual contribution mechanisms. The following sections draw on evidence from a range of international health-care financing systems to outline the pros and cons associated with different mechanisms for financing health care. This is important in order to draw key lessons from the international evidence for the Irish context.

### 9.3 ASSESSMENT OF TAX AND SOCIAL HEALTH INSURANCE CONTRIBUTIONS

#### 9.3.1 Overview of Tax and Social Health Insurance Contribution Mechanisms

The advantages and disadvantages of tax and social health insurance contribution mechanisms in terms of the assessment criteria are discussed together as these mechanisms share a number of key features, as will be outlined here.

Public tax-based contributions include direct, indirect and other government revenues (e.g. licences). Social health insurance contributions are levied on the payroll and are typically paid by employees and employers, with contributions for the unemployed, retired and other non-working dependents covered in different ways (e.g. contributions paid by the Government).<sup>1</sup> Social insurance funds can be collected and managed by one or a multiple of funds. All those who contribute (either directly or indirectly subsidised) are eligible to receive health-care benefits covered by the social insurance scheme. The social health insurance fund(s) pays health-care providers on behalf of those covered by the scheme.

As outlined above, public tax-based and social health insurance-based resources are not mutually exclusive and a mix is found in a number of countries. These mechanisms can also be mixed with private sources (e.g. for services that are financed by public tax resources or social health insurance resources, users may be required to make an additional co-payment at the point of use). In this context, the overall implications for acceptability, transparency, equity, stability and other factors (e.g. employment) depend on the combination that is chosen in a system.

#### 9.3.2 Acceptability, Transparency and Appropriate Incentives for Providers and Users

Public taxes are an accepted form of revenue collection in all developed countries. However, health care competes with other government objectives in the allocation of resources (Normand *et al.*, 2009) and may be more vulnerable to politicised budget processes than social health insurance contributions.

An important dimension of transparency is a clear link between the packages of services that are available and the funding of these services. In some countries the package can only be increased if the funding that is specifically for health services is also increased. Lack of transparency in how public tax-based resources are allocated can reduce acceptability of this resource mechanism for health financing.

<sup>1</sup> See Normand *et al.* (2009) and Thomas *et al.* (2006) for detailed descriptions on the social health insurance mechanism.

Social health insurance contributions can attract strong support due to transparency of resource flows and the direct link between being a contributor and having entitlements (Thomas *et al.*, 2006; Normand *et al.*, 2009; IMO, 2010). The more explicit and transparent link between payment for health care and entitlement to health care can strengthen patients' rights as consumers of health care (Normand *et al.*, 2009) with potential influence on quality and accountability of health-care services. However, in practice, social insurance funds are often augmented or 'bailed out' by government tax-based transfers/grants (e.g. payment of contributions for the unemployed via government tax subsidy) thereby reducing transparency (Thomas *et al.*, 2010).

Tax and social health insurance have shown different impacts on overall health expenditure levels and this is linked with issues of acceptability and transparency, and also administrative costs (see Section 9.3.5). Tax-financed systems are associated with stronger expenditure control relative to other financing mechanisms (McPake *et al.*, 2008) and this is consistent with econometric evidence (Wagstaff, 2009). Predominantly tax-financed health systems have been observed to have lower levels of per capita health expenditure relative to social insurance systems.<sup>2</sup> It has been argued that tax-financed systems are 'under-funded' (McPake *et al.*, 2002; 201) while in social insurance based countries, concerns about cost containment and efficiency have driven a number of reforms in this area (e.g. France removed expensive non-essential drugs from the publicly reimbursed package; Germany linked growth in overall social health insurance revenues to the rate of increase in salaries; Belgium increased co-payments and co-insurance rates and granted more direct financial responsibility to the mutualities, Saltman, 2004).

The higher level of expenditure in social health insurance systems may be linked with a greater willingness to pay. Transparency in resource flows can increase the amount that people are willing to contribute to the health service (i.e. there is a visible link between the resources that people are paying into the system and the services that those resources are buying) (Thomas *et al.*, 2010). However, despite the additional expenditure, there is no evidence that social insurance systems achieve better health outcomes in conditions that are amenable to health care.<sup>3</sup> There is evidence that countries with social health insurance systems perform worse than tax-based systems with regard to premature mortality from breast cancer (Wagstaff, 2009).

In terms of incentive effects, resources that are collected via tax or social health insurance contributions are pre-payments that are made by individuals according to the established payment procedures for the mechanism in question (e.g. tax laws)

<sup>2</sup> Systems with large proportions of private financing show the highest levels of per capita health expenditure relative to other countries (McPake *et al.*, 2008).

<sup>3</sup> Amenable mortality refers to deaths from causes that should not occur in the presence of timely and effective health care (e.g. breast cancer, cervical cancer, diabetes, epilepsy, appendicitis, maternal death etc.) (Nolte *et al.*, 2003).



and are not linked to use of health care. By removing the direct link between payment for health care and use of health care, in principle, these two financing mechanisms have less influence on a patient's health-care utilisation decision.

### 9.3.3 Equity Implications

Separation between what people pay for health care and what they receive, allows health services to be financed on the basis of a chosen principle (e.g. people's ability to pay), and delivered by providers in accordance with a different principle (e.g. delivered according to need rather than ability to pay). Where payments for health care are made on the basis of ability to pay, but receipt of health care is on the basis of need, there is cross subsidisation from richer people to poorer people, and from healthier people to sicker people. Public tax contributions and social health insurance contributions both introduce separation between what people pay for health care and what they receive (Thomson *et al.*, 2009). Individuals contribute resources which are collected, managed and allocated to providers by intermediaries (e.g. Government bodies, social health insurance funds etc.), and providers in turn allocate these services to individuals.

Analysts of equity in what people pay for health care have focused on adherence to the principle that payments are in line with ability to pay. Specifically, the focus has been on measuring progressivity, whereby with a progressive payment, not only do richer people pay more than poorer people, they pay a higher proportion of their income relative to lower income people.<sup>4</sup> The progressivity of total tax contributions depends on the mix of taxes (e.g. income-related taxes, value-added taxes etc.) and on the structure of taxes (e.g. higher income tax rates for higher incomes, ceilings, exemptions etc.). The progressivity of social health insurance contributions is influenced by the structure of payments (e.g. are there any ceilings, do some people enjoy exemptions). Cross-country evidence indicates that in practice, tax-based systems are more progressive than social health insurance systems (Wagstaff *et al.*, 1999).

### 9.3.4 Stability

All types of resource contributions can be ultimately unstable, especially during a period of recession. The focus here is on variability in available health-care resources within a given time period. The stability of taxes is influenced by tax type. For example, income taxes are more stable than taxes that are imposed on more discretionary sources of revenue such as stamp duties. Social insurance contributions are levied on incomes, and are thus concentrated on a relatively stable source of revenue, although this is balanced against the fact that the financing base is narrower than with overall tax revenue. Revenue from payroll contributions also

<sup>4</sup> A regressive payment involves people on higher incomes paying a lower proportion of their income relative to lower income people. A proportional payment involves all people paying the same proportion of their income.

fluctuates with employment and wage levels. If a social health insurance system receives funding from other sources then the stability of these will affect the overall stability of funding.

Given the concentration of social health insurance on payroll contributions, there are concerns that social health insurance has a negative impact on employment. Recent econometric analysis has examined system-wide impacts of shifting between social insurance and tax-financed systems (Wagstaff, 2009). Results show that a switch to social insurance leads to a reduction in the formal sector share of employment, which may in turn lead to a fall in the level of employment.<sup>5</sup> As theory predicts, an increase in the overall burden of deductions levied on the payroll increases the cost of employment, which has a downward effect on the level of employment, at least in the short run. The employment effects observed are not surprising in the context of the central European countries who re-introduced social health insurance systems in the 1990s, adding pay-related social insurance contributions to an already heavy tax burden on employers and employees (Preker *et al.*, 2002).

### 9.3.5 Administrative Costs

Collection of health-care resources through the public tax system controls administrative costs by using an existing revenue generation mechanism. There is some evidence that administrative costs are higher in social insurance than in tax-based systems (Figueras *et al.*, 2004).

Administrative costs are influenced by the number of social health insurance funds that are established. As noted in Section 9.3.2, the higher degree of cost control that has been observed for the tax mechanism relative to social health insurance, is partly related to administrative issues. The 'monopsony' (i.e. a market with multiple providers/sellers and only one buyer) buying status of the public body responsible for pooling and allocating the tax resources (Thomas *et al.*, 2010) allows a high level of control over what is provided and at what cost. However, Thomas *et al.* (2010) also identify examples where single buyer arrangements have operated even in the context of multiple social health insurance funds (e.g. Germany).

Additional administrative costs are required in a social health insurance system with multiple funds. Where there are multiple funds, a system of risk equalisation is required (i.e. to compensate funds that attract more expensive members) (Thomas *et al.*, 2006). However, risk equalisation systems require complex arrangements to avoid exploitation of loopholes in the system in order to appropriately share risk

<sup>5</sup> The formal economy refers to activity that is taxed/monitored by government and is reflected in measures of national income (i.e. Gross National Product).

across the insurance funds. It has also been noted that complete adjustment for risk has not been observed even in the case of the sophisticated system used in the Netherlands (which adjusts for age, sex, region, employment status, disability, diagnostic cost groups and pharmacy cost group (Thomas *et al.*, 2010, see also Country Profiles: The Netherlands). Thomas *et al.* (2010) also question if it will ever be possible to fully adjust for risk given that relative of costs of different types of treatment can be altered over time by technological changes. This is not a disadvantage of social health insurance per se, but may be an argument against multiple funds within a social health insurance mechanism.

## 9.4 ASSESSMENT OF PRIVATE CONTRIBUTIONS

### 9.4.1 Private Health Insurance

#### 9.4.1.1 Acceptability/Transparency/Incentives

As with social health insurance, private health insurance introduces a transparent link between what is paid for health care and the entitlements attached to that payment (e.g. a specific benefit package). However, subsidisation of private health insurance by public resources reduces the transparency of private health insurance resources and can establish unintended incentive effects in the use of privately insured services. Similar to the tax and social health insurance mechanisms, private health insurance premiums are pre-payments and are therefore not directly impacting on health-care utilisation decisions.

#### 9.4.1.2 Equity

The equity implications of private health insurance are influenced by the structure of the health insurance market (actuarially priced or community rated premiums). Consumers with high health risks are priced out of a risk-rated health insurance market. In a community rated system all individuals purchasing the same private insurance product pay the same premium regardless of risk status or income, and a system of risk equalisation is required. Community rating allows cross subsidisation of risk and resources amongst those who are insured. This facilitates an intergenerational transfer of resources, allowing cross subsidisation between younger, healthier groups and older, sicker groups. However, the flat rate premium imposes a relatively greater burden on the lower income groups in the pool of insured. Community rated premiums can also have the unintended consequence that they preclude some low risk, poorer individuals from purchasing private health insurance (where in a risk-rated system their low risk would secure a lower premium).

The equity implications of private health insurance are also influenced by the role of private health insurance in the system. Private health insurance can take on a substitutive, supplementary or complementary role (Thomson *et al.*, 2009).

Substitutive health insurance covers people who are excluded from, or opt out of, publicly funded health care. Supplementary health insurance covers faster access to health care (e.g. often through private providers). Complementary health insurance covers services or user charges that are not covered by public funding. Where supplementary private health insurance is used to purchase private health care outside the public health-care system, this could lessen the burden of demand on the public system. However, there are also cases where private health care can be purchased within the public health-care system, and there is a risk that where supplementary private health insurance permits faster access to private health care within the public system, there may be crowding out of public patients.

#### 9.4.1.3 Stability

Private health insurance financing is less stable than tax-based or social health insurance contributions given the reliance on discretionary expenditure, linked to individuals' willingness and ability to pay.

#### 9.4.1.4 Administrative Costs

Administrative costs may be kept low where there is a competitive market for private health insurance. In a market governed by community rating, the cost of equalising risk across the private insurers is an important consideration.

### 9.4.2 Out-of-Pocket Payments (User Fees)

#### 9.4.2.1 Acceptability/Transparency/Incentives

User fees are official payments for health care that are made by patients at the point of use, and thus the link between what is paid and what the user is entitled to receive is direct and transparent.

Robinson (2002) noted that user fees in Europe have comprised a relatively small proportion of total health expenditure, with a greater emphasis on pre-payment systems (e.g. public tax, social health insurance schemes) in order to protect individuals from paying the full financial costs of health care at the time of use in light of the uncertainty around health-care demand. However, user fees are often advocated on the grounds that they can reduce moral hazard (i.e. ration unnecessary use by patients) and generate additional revenue (Creese, 1997; Robinson, 2002). Thus, user fees are expected influence behaviour to some degree. This section focuses on the incentive effects of user fees in terms of their impact on demand and there is a large body of evidence around this issue. Findings are consistent across a wide range of settings, in both developed and developing countries, and in both natural and experimental conditions (e.g. review by Robinson, 2002).

User fees have been observed to have a dissuasive impact on health-care utilisation.<sup>6</sup> Examples from developed countries include France (Grignon *et al.*, 2008), Ireland (Nolan *et al.*, 2007; O'Reilly *et al.*, 2007) and the US (Newhouse *et al.*, 1993). In the Netherlands, recent health reforms require all individuals to purchase private health insurance. While there is no restriction in the choice of health insurer or type of health plan, it is noted that the majority choose plans without deductibles (Bartholomée *et al.*, 2006), consistent with a preference for pre-payment for health care.

The widely cited Health Insurance Experiment undertaken by the RAND Corporation provides data on the impact of user fees on health-care utilisation and outcomes from a randomised controlled trial (Newhouse *et al.*, 1993).<sup>7</sup> Cost-sharing (i.e. co-payments by patients) was observed to be just as likely to lower appropriate use as it is to lower inappropriate use. The reduction in health service use in response to cost-sharing was not observed to have a negative effect on health outcomes for the average person but measurable negative effects were found for poorer people (e.g. blood pressure was lowered more for those receiving free care relative to those on cost-sharing plans). Demand for health care is relatively price inelastic, but poorer people have a higher price elasticity of demand relative to richer people (McPake *et al.*, 2008).<sup>8</sup> For a given price increase for a good, the proportional reduction in demand is greater, the higher the price elasticity of demand. Thus, the deterrent effect of a user fee for health care is greater for poorer people given their higher price elasticity of demand for health care. With a larger deterrent effect, the negative impact of user fees on health outcomes is more likely to be detected, as observed in the RAND experiment. Newhouse *et al.* (1993) conclude that the results support both free care (for the sick and the poor) and cost-sharing (for the majority of the population).

Overall, evidence suggests that user fees are not an effective instrument for rationing inappropriate health-care demand, particularly since they deter both effective and ineffective health-care utilisation (Robinson, 2002). The inability of patients to discriminate between appropriate and inappropriate demand means that they are likely to be deterred from some very important interventions (such as having a timely diagnosis of asymptomatic hypertension) as well as from some chronic disease management services. In Quebec, Canada, Tamblyn *et al.* (2001) reported a reduction in the use of essential drugs by elderly persons following an

<sup>6</sup> Examples from developed countries are detailed here but other examples are available from middle and lower income countries (e.g. Uganda, Deininger *et al.*, 2004; Georgia and other former Soviet Union countries, Gotsadze *et al.*, 2005).

<sup>7</sup> Approximately 2,000 non-elderly families were randomly assigned to 14+ different insurance plans with different levels of cost-sharing ranging from 0-95 per cent and with different annual maximum out-of-pocket payment levels (i.e. 'maximum dollar expenditures') (Newhouse *et al.*, 1993).

<sup>8</sup> Price elasticity is a measure of how responsive demand is to a change in price. If demand for a good or service is price elastic, this means that for a given percentage increase in price, demand increases by a larger percentage. Conversely, if demand for a good/service is price inelastic, demand is relatively unresponsive to a change in the price of that good/service (in the sense that the proportionate change in demand is less than the proportionate change in price).

increase in cost-sharing for prescription drugs in the late 1990s. Analysis also found a higher rate of serious adverse events and emergency department visits associated with these reductions in essential drugs utilisation. In a US study on diabetes, out-of-pocket expenses prevented access to relevant medications in more than one third of a sample of patients with diabetes/at risk of diabetes (Fox *et al.*, 2008). Analysis of mammography screening in the US identified significantly ( $p < 0.001$ ) lower mammography rates where co-payments were required. The effect of cost-sharing was greater for females living in areas of lower income/education levels (Trivedi *et al.*, 2008).

#### 9.4.2.2 Equity

A common criticism of user fees concerns their negative implications for equity. A flat rate user fee imposes a higher proportional burden on lower income groups relative to higher income groups and this is labelled as a regressive source of financing. Regressivity in out-of-pocket payments has been identified in analysis of a range of developed countries (Wagstaff *et al.*, 1999). Given the higher price elasticity of demand for health care amongst poorer individuals (McPake *et al.*, 2008), unaffordability of user fees can lead to lower income groups being fully excluded from seeking health care when needed, or from seeking health care at the most appropriate location.<sup>9</sup> Implications for equity have also been raised with regard to chronic diseases. Chronic ill health requires individuals to use health services and hence make the out-of-pocket payments, on an ongoing basis, compared with other more healthy counterparts who do not require health care as often, and hence do not have to make as many out-of-pocket payments (Newhouse *et al.*, 1993).

#### 9.4.2.3 Stability

As with private health insurance, user fees are less stable than tax-based or social health insurance contributions given the reliance on discretionary expenditure, linked to individuals' willingness and ability to pay.

#### 9.4.2.4 Administrative Costs

As a source of additional revenue, the evidence is mixed. While overall, user fees have not generated a large proportion of total health revenues (Creese, 1997), they provide a direct source of revenue to the provider and these can be an important source of supplementary revenue at the micro level in the absence of sufficient centrally allocated funding. However, cost-sharing schemes have been found to be complex and expensive to administer (Robinson, 2002) and this has to be balanced against the potential for revenue collection.

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<sup>9</sup> The most dramatic examples of this are observed in developing country contexts, where out-of-pocket payments take on a progressive distribution. In this context, richer groups pay a higher proportion of their income on user fees only because they can afford to while lower income groups are unable to afford to pay any of their income towards user fees (O'Donnell *et al.*, 2008).

## 9.5 ISSUES AND IMPLICATIONS

Assessment of the different health resource contribution mechanisms, and in particular the tax and social health insurance mechanisms, provides input into the current debate surrounding the introduction of social health insurance in the Irish context.

On the basis of acceptability and transparency, a key advantage of a social health insurance system is the transparency brought about by the directly observable link between health-care resources and health-care entitlements. Social health insurance can attract support in the population because of this visible link between contributions that individuals make and entitlements to services funded by those contributions. However, the degree to which a social health insurance system is supplemented by tax-based resources interferes with this transparency. A directly observable link between resources and health-care entitlements is not automatic in a tax-based system and this lack of transparency can reduce acceptability of this mechanism for health financing. There are ways to make this link more explicit, without adopting a system of social health insurance, by introducing a range of instruments that more clearly define what is available for health care (e.g. hypothecation of resources) and what those resources are expected to pay for in the system (e.g. service agreements, explicit strategies outlining what people can expect from a service, changes to hospital payment structures etc.).

Hypothecation, or earmarking, is suggested as a means of introducing greater accountability and transparency into public expenditure priorities (Duncan *et al.*, 2003). There is a distinction between strong and weak earmarking. With strong earmarking, the level of public expenditure on a specific service is determined by the level of hypothecated tax revenue, while weakly earmarked taxes do not determine the overall level of expenditure on the service. As outlined by Duncan *et al.*, (2003), taxpayers have no direct control over total public expenditure for a specific service. Thus, the effect of a hypothecated tax is limited to ensuring that public expenditure for that service cannot fall below a minimum level (i.e. the minimum level is equal to the amount of the hypothecated tax). This constraint is unlikely to be binding unless the hypothecated component of the tax accounts for a major proportion of the overall tax rate.

There are also necessary features of the social health insurance mechanism that increase transparency in how resources are spent, since they require methods that fund access to a specified range of services, and this involves mechanisms to pay providers that encourage more efficient production of services. However, it is possible to introduce funding and payment mechanisms in a tax-based system that can improve the level of transparency in that mechanism.

The tax mechanism is associated with lower expenditure than is observed for social health insurance although this is influenced by the structure of the social health insurance system (e.g. with multiple funds a system of risk equalisation is required) and there are ways of increasing the level of cost control in the case of multiple social health insurance funds. Higher administrative costs in the social health insurance mechanism would also need to be balanced against efficiency savings arising from the above noted provider payment mechanisms. Higher expenditure in social health insurance systems may be related to greater willingness to pay but it is also important to note that there is no observable link between higher expenditure and better health outcomes.

On the basis of equity, both tax and social health insurance mechanisms ensure that payment for health care is separated from the risk of ill health and in this respect one mechanism offers no clear advantage over the other. The extent to which richer people pay a higher proportion of their income towards health care relative to the poor depends on how the tax or social health insurance payment structures are structured. The progressivity of the payment structure is not inherent to either the tax-based or the social insurance mechanisms; progressive payment structures can be achieved in both contribution mechanisms.

In terms of stability, all types of resource contributions can be ultimately unstable. There is no difference between the stability of payroll based social health insurance contributions and public income tax contributions, while there can be greater instability in non-income tax revenues within a given time period.<sup>10</sup> In the context of a social insurance contribution, this would need to be accompanied by reductions in other public tax contributions to avoid short-run negative impacts on employment.

On each of these dimensions, it is clear that there are few inevitable differences between the tax-based and social health insurance contribution mechanisms with the exception of acceptability and transparency. If greater transparency is considered to be of critical importance for the Irish health sector there is a case for changing to a system of social health insurance. Since there is a cost of making such a change it would need to be demonstrated that this cost is justified.

The international evidence on private health-care resource mechanisms can also inform discussions on health-care financing in the Irish context. In particular, complexities around the structure of user fees in the Irish system are discussed in Chapters 10 and 15. While pre-payment of health care is the dominant form of

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<sup>10</sup> For example, in the Irish context, the proportion of income tax in overall tax revenue has been low relative to other European countries although future comparisons will need to take into account the income and health levies and their likely consolidation into a reformed PRSI deduction as announced by the Minister for Finance as part of the 2010 budget (Department of Finance, 2009).



health-care financing in developed countries, cost-sharing is a feature in most countries. There is also evidence that where people have a choice between pre-payment and payment at the point of use, they choose the former (Bartholomée *et al.*, 2006). User fees cannot be used to manage demand where the intention is to ration only inappropriate use as they act as a deterrent for both useful and useless health-care demand, in equal proportions, across all income groups. However, user fees can provide an additional source of health-care revenue where the administration costs are low. Thus, payments at the point of use should be structured in way that will not seriously deter utilisation (e.g. zero for poorer and sicker people, and higher levels for others but not so high as to seriously deter), and where the costs of administration do not outweigh the revenue raised. Administrative costs are closely related to the complexity of the fee system, and are increased where many services and individuals enjoy some limits or exemptions.

## 9.6 SUMMARY

Resources for health care are generated from individuals in a number of ways. The main health-care resource contribution mechanisms include public tax revenues, social health insurance, private health insurance and out-of-pocket payments. International health-care financing systems use a mix of these mechanisms and the structure and mix varies from one country to another. Although countries are often grouped according the dominant source of financing (e.g. tax-based systems, social health insurance systems), the mix of resource mechanisms in each system is becoming more complex and it is more logical to assess the merits or otherwise of each individual mechanism separately.

The purpose of this chapter has been to assess each of these individual health resource contribution mechanisms against a set of criteria including acceptability and transparency, equity in financing, stability, administrative costs and incentive structures. Key policy implications have been discussed, with specific focus on the comparison of tax and social health insurance mechanisms and on international experience with user fees.

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**PART 5**

Health Care in Ireland:  
Financing

**CHAPTER 10**

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# Chapter 10

## The Current Health-Care Financing System in Ireland

### 10.1 INTRODUCTION

As outlined in Chapter 9, resources for health care are collected from individuals via a number of different mechanisms. The focus of Chapter 9 was on international experience with how resources for health care are generated. The main resource contribution mechanisms were assessed against a set of criteria that help determine how consistent or otherwise individual contribution mechanisms are with the rest of the health-care system. On the basis of the international review, this chapter examines the specific mix of health resource contributions that make up the Irish health-care financing system with a view to highlighting specific challenges to supporting effective resource allocation and integrated health-care delivery. In particular, problems are identified along the dimensions of transparency, equity and user incentives.

Section 10.2 summarises the main features of the health-care financing structures in Ireland. Section 10.3 draws out the key problems in the health financing system in light of the assessment of international evidence on financing mechanisms in the previous chapter. Section 10.4 raises important issues and implications arising from the analysis and Section 10.5 summarises the chapter.

### 10.2 CURRENT HEALTH-CARE FINANCING STRUCTURES IN IRELAND

#### 10.2.1 Combination of Public/Private Resources

As outlined in Chapter 1, the Irish health-care system is financed by a mix of public and private expenditure. Public resources (i.e. tax and non-tax government revenue) have consistently accounted for the largest proportion (approximately 80 per cent) of total health-care financing in Ireland. A limited amount of public resources are earmarked for health care (i.e. via the health levy and subsidisation of care under the Treatment Benefit Scheme<sup>1</sup>). Private health expenditure includes direct out-of-pocket payments by households (10-15 per cent of the total) and claims expenditure (8-9 per cent) by private health insurance companies on behalf of their members.

<sup>1</sup> Subsidisation of dental, aural and ophthalmic care for individuals who have made requisite pay related social insurance (PRSI) contributions.

### 10.2.2 Public Resources

Public income taxes are levied at a standard rate (20 per cent) on incomes up to €36,400/€45,400 (single, no children/married couple) and at a marginal rate of 41 per cent on incomes above the threshold. An income levy (2-6 per cent) and a health levy (4-5 per cent) also apply. Employee and employer contributions to the pay related social insurance (PRSI) fund are also levied (employee contribution of 4 per cent on incomes up to €75,036, employer contribution of 10.75 per cent). A range of tax credits, tax reliefs and exemptions are available. Other taxes and levies include value added tax, excise duty, stamp duty, corporation tax and others.<sup>2</sup>

### 10.2.3 Private Sources

Out-of-pocket expenditure on health includes spending on GP and other professionals' fees (e.g. consultant specialists, dentists, opticians etc.), net outlays on prescription medicines, other medical equipment and services. The proportion of out-of-pocket resources in total health-care financing has remained stable over time although as noted, data on private health expenditure in Ireland are imprecise and need to be interpreted with caution (Tussing *et al.*, 2006).

Private health insurance in Ireland mainly plays a supplementary role, although there are also elements of a complementary role.<sup>3</sup> The initial aim of private health insurance in Ireland was to provide cover for the wealthiest proportion of the population (approximately 15 per cent) who at the time were required to pay inpatient bed charges, consultant treatment costs for inpatient care and outpatient charges, in public hospitals (Nolan *et al.*, 2000). However, demand for private health insurance grew despite extensions in eligibility for publicly funded hospital care, substantial increases in health insurance premiums and a reduction in tax relief on premiums from the marginal to the standard tax rate. Approximately 50 per cent of the population are now covered by private health insurance (Insight Statistical Consulting, 2008).

Econometric analysis indicates that a large proportion of the increase in demand for private health insurance remains unexplained even after controlling for income and price changes (Nolan, 2006). The majority of health insurance cover is for hospital care and attitudinal surveys confirm its supplementary role, indicating that perceptions of greater access to hospitals and of greater quality of private versus public care are key drivers underpinning the observed demand for health insurance (Nolan, 2006). Other reasons include ensuring good treatment, direct consultant care and avoiding large hospital bills (Nolan *et al.*, 2000). The market for

<sup>2</sup> Available at: [www.revenue.ie](http://www.revenue.ie) [last accessed 08 January 2010]

<sup>3</sup> As described by Thomson *et al.* (2009), supplementary private health insurance offers faster access to health care, often through the use of private providers, while complementary private health insurance provides cover for user charges and for services that are excluded from the public system altogether.



complementary private health insurance has been growing in more recent years, particularly in the area of covering primary care (Colombo *et al.*, 2004) and outpatient fees. A number of private health insurance policies now offer at least partial cover for general practitioner (GP), emergency department (ED) and consultant specialist user fees.

Despite the high demand, private health insurance has consistently contributed less than 10 per cent of total health-care resources (see Figure 1.4 in Chapter 1). Government policy supports the existence of this market and the national health strategy describes it as a '*strong complement to the publicly funded system*' and a vital part of the '*overall resourcing of health care in this country*' (DoHC, 2001; 111). The Government actively supports the market by subsidising the cost of private health insurance and tax relief on private health insurance premiums amounted to approximately €260.5m in 2006 (Revenue Commissioners, 2008).<sup>4</sup>

The private health insurance market is governed by principles of community rating, open enrolment and lifetime cover (YHEC, 2003). These measures are intended to shape the private health insurance market to be in line with government priorities (YHEC, 2003). Community rating requires that the same premium is charged for a particular product to all individuals, regardless of individual characteristics (e.g. age, sex, health status). Open enrolment ensures that health insurance membership is open to any individual under the age of 65 who applies, and lifetime cover obliges the insurance company to renew the insurance contract on an annual basis (provided the individual has not conducted fraud under the insurance contract). The Health Insurance Authority oversees the market and is required to implement a risk equalisation scheme to support community rating. Under risk equalisation, funds are transferred within the market to compensate companies for less favourable risk profiles. Until now the establishment of a risk equalisation scheme in Ireland has been subject to a number of legal challenges although the Government recently announced that the relevant legislation will be published in 2011 with planned enactment and implementation of risk equalisation by the start of 2013.<sup>5</sup>

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<sup>4</sup> Approximately €300m in 2007 (DoHC, personal communication; 25 May 2010).

<sup>5</sup> There are three key players in the private health insurance market (Vhi Healthcare, Quinn Healthcare, Aviva Health) with Vhi Healthcare holding the largest market share. This is a semi-state body but the Government has recently announced the intention to make substantial capital investment in Vhi Healthcare so that it can meet the reserves requirements set by EU law, with the subsequent aim of selling it (DoHC, 2010a).

### 10.3 CHALLENGES IN THE CURRENT IRISH HEALTH-CARE FINANCING SYSTEM FOR RESOURCE ALLOCATION AND INTEGRATED HEALTH-CARE DELIVERY

#### 10.3.1 Identifying the Challenges

As discussed in Chapter 9, the health-care financing assessment criteria are useful for identifying which mechanisms are more/less supportive of effective resource allocation, integrated health-care delivery and other issues (e.g. sustainability).

As outlined, public taxes account for the major proportion of health-care resources in the Irish health financing system. International evidence indicates that if structured appropriately, this mechanism has positive attributes in terms of acceptability, equity (i.e. payments can be structured to be progressive), stability (although this is influenced by the mix of different types of tax), administrative costs (e.g. cost control) and incentives (i.e. pre-payments rather than payments direct at the point of use). For example, on equity, there is recent evidence on the distributional burden of public tax contributions in the Irish context. Results indicate that these contributions are in line with ability to pay, with richer income groups making higher contributions than poorer income groups. These contributions are also shown to be marginally progressive, whereby richer groups pay more, not just in absolute amounts, but as a proportion of their incomes relative to poorer income groups. However, regressivity (lower income groups paying a higher proportion of their income relative to richer groups) in indirect tax outweighs much of the progressivity that is observed in direct tax (Smith, 2010a).

One of the areas where the tax mechanism has been shown to perform less well is in terms of transparency and this is identified as a particular issue of concern in the Irish health-care financing system, discussed in more detail in Section 10.3.2.

Relative to public tax contributions (and social health insurance contributions), private resources are found to perform less well on dimensions of equity and stability, and in particular, out-of-pocket payments are shown to have disincentive effects on health-care utilisation. While private resources account for a relatively small proportion of total health-care resources in the Irish context (not more than 20 per cent), they play important roles in financing specific areas of the system and for specific groups of health-care users. Out-of-pocket payments, while accounting for not more than 15 per cent of total health-care resources, are the predominant source of financing for primary care for the majority of the population. Thus, while private resources are found in most health care financing systems, specific problems arise in the Irish context that are linked with what private resources are used for, and with how public and private resources interact within the system, and conflicting incentives between users and providers are observed.

The following sections discuss in turn three key weaknesses in the Irish health-care financing system that have been noted here and these refer to issues of transparency and acceptability, equity and conflicting incentive structures.

### 10.3.2 Transparency and Acceptability

Problems with transparency and acceptability are identified in how public resources are allocated to health and in how public health-care resources are allocated within the sector. Assessment of adherence to principles of equity and others is complicated without transparency, which can in turn dampen confidence in, and support for, the system. The complicated flow of resources in the Irish health-care system makes it difficult to identify who is paying, how much they are paying, who is receiving services, and how much they are receiving relative to need.

First, the amount of public tax resources available for health is determined as part of the general budget process and the criteria underpinning annual budget allocations are unclear. While resources collected via the health levy are earmarked for health, this accounts for a small proportion of total health-care resources.<sup>6</sup> As discussed in Chapter 9, unless the hypothecated component of the tax accounts for a large proportion of the overall tax rate, it will have minimal/if any influence on the level of public health expenditure in practice.<sup>7,8</sup>

Second, transparency is also reduced in the presence of complicated public subsidisation patterns. Public resources subsidise the purchase of selected private services in the system. Tax relief at the standard tax rate (20 per cent) is granted on private insurance premiums (approximately €260.5m in 2006, Revenue Commissioners, 2008) and on medical expenses that are not otherwise reimbursed by public funding or by private health insurance (approx. €167.2m in 2006, Revenue Commissioners, 2008).<sup>9</sup> These are examples of tax expenditures. While direct

<sup>6</sup> Health levy contributions accounted for less than 12 per cent of resources in 2004 (DoHC, 2005a).

<sup>7</sup> Weak earmarking will constrain public expenditure decisions only where the hypothecated revenue contributes to a specific spending programme within a general public service area (Duncan *et al.*, 2003). In the Irish context, health levy contributions are not earmarked for any specific health programme.

<sup>8</sup> In their recent discussion of health financing mechanisms, the Irish Medical Organisation note the possibility of making tax-funded models more transparent via hypothecated taxation such as the income related health levy, and by defining what services people are entitled to (IMO, 2010).

<sup>9</sup> Tax relief on private health insurance premiums is justified in government policy as one of a range of strategies to support the purchase of private health insurance (DoHC, 1999) although recommendations have been made in the past for the abolition of this form of relief (e.g. Commission on Health Funding, 1989) on equity grounds (i.e. supporting the purchase of a good that is generally more affordable by higher income groups). The relief was initially granted at the individual's marginal tax rate and since the 1990s it has been provided at the standard rate of tax, deducted at source by the insurance companies. Thus, it operates more as a tax credit and is available to all those who purchase private health insurance, whether or not the individual is a taxpayer (DoHC, 2005b). The switch from relief at the marginal rate to the standard rate of tax will have changed the distributional impact of the relief (from regressive to proportional). The recent Commission on Taxation (2009) has recommended that tax relief on private health insurance should be limited to a fixed amount per individual. From 2009, tax relief on medical expenses is granted at the standard rate of tax rather than the marginal rate and the threshold payment of €125 has been removed, reducing the regressivity of the relief (see Chapter 9 for further discussion of progressivity/regressivity).

expenditure programmes are highly visible, tax expenditures are less visible and transparent. Normal government expenditures should be subject to annual scrutiny within the budget process, but in contrast many tax reliefs are not time limited and roll over from one year to the next without any automatic re-evaluation.

Public subsidisation of privately insured care is not limited to private health insurance tax relief. A large proportion of privately insured care is delivered in public hospitals and charges do not cover the full economic cost of that care, leading to additional subsidies. Identifying the full economic cost is not straightforward but analysis currently being undertaken in this area is likely to lead to recommendations for increases in the charges for private care in public hospitals. It is noted that charges for private and semi-private care in public hospitals have increased by more than 200 per cent between 2000 and 2009 (see also Chapter 7).<sup>10</sup>

There is also a lack of transparency in how resources are allocated within the health-care sector.<sup>11</sup> For some services, it is difficult to identify who is entitled to public funding, particularly with regard to community care services. For some community care services, all individuals may be entitled to receive a service, but in practice medical cardholders are granted priority due to limited capacity/supply (Smith, 2010b).

### 10.3.3 Equity

Public subsidisation in the system also has potentially negative distributional implications. All taxpayers contribute to the cost of public tax relief on private health insurance which in turn benefits only those who can afford to purchase private health insurance (Smith *et al.*, 2009). There are also concerns of two tier access to care within the public hospital system. There is evidence that restrictions on the level of private practice in the public hospital system have not been met, influenced by the range of incentives in favour of private treatment within public hospitals (i.e. less than full economic charging etc.) (Wiley, 2001; Tussing *et al.*, 2006).<sup>12</sup> Analysis will be needed of the implications of increases in the daily maintenance charges for private patients in private beds in public hospitals, and of the new consultant contract (discussed in Chapter 7), on the use of public beds in public hospitals.

Public waiting lists are another source of inequity (and inefficiency) in the system. The National Treatment Purchase Fund (NTPF) was set up to address the problem of waiting lists, causing further complications in the resource flow. Individual taxpayers

<sup>10</sup> The daily maintenance charge for a private patient in a private bed in a public regional or voluntary teaching hospital increased from €232 (£183) in 2000 to €910 in 2009 (DoHC, personal communication, 15 August 2007; DoHC, 2010b).

<sup>11</sup> It is noted that annual national service plans prepared by the Health Service Executive for approval by the Minister for Health and Children have improved transparency in this part of the resource flow.

<sup>12</sup> The public hospital bed designation system restricts approximately 80 per cent of beds in public hospitals for public care.

contribute to public tax resources, a proportion of which are used by the NTPF to purchase health care in the private sector, at private sector rates, for public patients. The NTPF has itself been effective in meeting its objectives. A total of 135,691 patients were treated under the NTPF between 2002 and 2008 and the median waiting time on the NTPF list for medical and surgical patients is now 2.6 months (NTPF, 2008). However, the scope for increasing public hospital activity, or eliminating spare capacity in order to reduce or eliminate waiting lists can be examined, an issue raised by the Comptroller and Auditor General (2009).

User fees in the system have implications for equity. As outlined in Chapter 9, flat rate out-of-pocket charges are regressive, imposing a greater proportional burden on people on low incomes relative to higher incomes. In Ireland, while the lowest income groups face zero out-of-pocket payments for many health-care services (covered by a medical card), the burden of out-of-pocket payments disproportionately affects low to middle income groups (i.e. above the threshold for medical card eligibility) (Smith, 2010a). In previous analysis of equity in Ireland and other West European countries (Wagstaff *et al.*, 1993; Wagstaff *et al.*, 1999), regressivity in private health-care financing was not considered to be a serious problem in light of the more progressive public sources of finance, which accounted for the majority of health-care financing in the observed countries. However, in the Irish context, as outlined earlier, while out-of-pocket payments account for 10-15 per cent of total health-care resources, they play a key role in primary care financing, and for specific groups in the population. The requirement for the majority of the population to pay out-of-pocket for GP care is unique to Ireland compared to other developed countries (Smith, 2010b).

There is evidence that user fees influence health-care seeking behaviour in the Irish system (Nolan *et al.*, 2007a; O'Reilly *et al.*, 2007) and there are related equity implications. Overall, available analysis indicates that medical card patients use more GP care relative to average need, while non-medical card patients use less GP care relative to need (Nolan *et al.*, 2007b).<sup>13</sup> The impact of the full-price charge for GP care for non-medical card holders is complicated further by uncertainty around the pricing level. Charges for private GP visits vary by GP, but can also vary by visit and are hard to predict in advance (Indecon, 2003). As structured, user fees for GP care in the Irish health-care system are complex. There is evidence that these charges are not discriminating between necessary and unnecessary demand (GP utilisation is deterred all the way up the income distribution amongst non-medical card holders), and they are inequitable (disproportionately affecting utilisation by lower income non-medical card holders) (Nolan *et al.*, 2007a; O'Reilly *et al.*, 2007).

<sup>13</sup> While it is emphasised that measurement of health-care need is difficult, available data allow control for a number of health need indicators, and the remaining difference in visiting patterns between medical card and non-medical card holders is not likely to be explained by better measurement of health need (Nolan *et al.*, 2007b).

The community rated structure of the private health insurance market in Ireland can also impact on equity in the system. A community rating structure has interesting equity implications. With all insured individuals paying the same premium for a particular health insurance product (i.e. regardless of risk status or income), there is expected to be intergenerational cross subsidisation (from younger and healthier individuals to older and sicker individuals). However, the flat rate community rated premium will have a greater impact on a low income than on a higher income. Evidence indicates that the distribution of private health insurance payments is regressive across the privately insured population in Ireland (Smith, 2010a). Also, if those without private health insurance are relatively healthy, their low risk could secure a lower and more affordable premium in a market governed by actuarially priced rather than community-rated premiums.

#### 10.3.4 Incentives for Users

The structure of the Irish health-care system establishes a set of incentives that can influence the behaviour of both users and providers. To support effective resource allocation and integrated health-care delivery, financial incentives need to be structured in ways that reward registration and continuity of care with a primary care provider and care in the most appropriate level and location. On the provider side, health-care providers at all levels of care should be incentivised to ensure continuity of care, correct treatment of patients at the right place, with regular intra- and inter-service communication. Health-care users should be incentivised to register with a primary care provider and to seek treatment at the right time and from the most appropriate care provider. This section focuses on the incentives facing users in the Irish health-care system (incentives facing providers are discussed in more detail in Chapters 3, 4, 6 and 7).

First, to avail of GP services free at the point of use, medical card holders register with a GP (generally of their own choice). There is no financial incentive to non-medical card holders to register with a primary care provider. They pay the private GP charge at the point of use, regardless of whether or not they are registered with a GP or with a GP practice. Thus, for the majority of the population there is no incentive on the part of the user to engage with a regular care provider, primary care for these users is paid for on an episodic, visit-related basis with no incentive (for provider or user) for continuous care for the prevention and management of chronic illness.

Second, as noted in Section 10.3.3, user fees for GP care have been shown to discourage utilisation in the non-medical card population and there is evidence that both necessary and unnecessary utilisation is being discouraged or delayed.

Third, the combined structure of user fees for primary and acute care affects where care is delivered in the system with implications for efficiency, effectiveness and integrated health-care delivery. Different prices for different levels of health-care incentivise use of services where the price is cheaper. Where there are user fees at the primary level of care, but free care at the acute level, the incentive is for demand to shift from the primary to the acute level. In the Irish system, while non-medical card holders pay out-of-pocket for GP care, once a patient is referred to outpatient services there is no further consultation charge. This encourages patients to continue to see a consultant specialist even if a GP consultation would be more appropriate. These are incentives for patients to continue to be cared for in acute care and there is anecdotal evidence that some consultant specialists are finding it difficult to discharge patients back to GP care due to the higher cost to patients. Statutory charges apply for public hospital care (e.g. self-referred non-medical card outpatient visits) but numbers of such patients are small, and in practice it is difficult to collect such fees.

To illustrate, a user fee is charged for self-referred non-medical card attendances at public hospital emergency departments. This fee is currently set at €100 and is higher than the estimated average GP fee (e.g. €45–€60, Competition Authority, 2009). This is expected to encourage primary care utilisation over ED utilisation.<sup>14</sup> However, ED utilisation in Irish public hospitals remains high. In 2004, 40 per cent of ED attendances at 4 large teaching hospitals in Dublin were non-urgent cases, although further data collection is required to determine the proportion that could have been more appropriately treated in a primary care setting (Smith, 2007a). Survey data indicate the costs associated with a GP visit might be more prominent in the public mind than the charge attached to an ED attendance. This is supported by evidence of variation across hospitals in collection of ED fees (Smith, 2007b).

There is international evidence that people who do not have a regular source of primary care (i.e. not registered) are more likely to be hospitalised, to delay seeking timely preventive care, to receive care in EDs and to have higher subsequent mortality and higher health costs relative to those reporting a regular source of primary care (Starfield *et al.*, 2005). The above analysis has shown that in Ireland, incentives for a user to register with a primary care provider are limited to the medical card population; that for the majority of the population (i.e. non-medical cardholders), user fees at the primary care level are discouraging use; and that there are incentives in favour of using acute care over primary care for the non-medical card population.

<sup>14</sup> The patterns of use of primary and ED care are also influenced by the availability of out-of-hours GP services which varies across the country.

Since charges to individuals are not a useful discriminator to deter unnecessary use of services (as discussed in more detail in Chapter 9), their main potential incentive uses are to penalise the use of services in the wrong settings. Providing services free at the point of use avoids some of the difficulties in encouraging regular use of the different levels of care that is useful in managing certain chronic diseases. This does not necessarily imply a change in who bears the cost, but rather that costs are pre-paid. For non-medical card holders, payment for primary care is directly linked to receipt of primary care. It is important to ensure that payment issues do not interfere with a patient receiving the most appropriate care at the most appropriate level of the system.

There are also complicated incentives in particular areas of the system, and these include the mechanisms for charging for outpatient diagnostic tests and mixed entitlement structures:

- Focusing on private (non-medical card) patients, where a patient is referred by a GP to the hospital for diagnostic tests, the cost of the test is absorbed by the hospital (and the patient pays the private GP charge). Alternatively if a patient pays privately to see a consultant specialist, and the consultant in turn prescribes diagnostic tests, the costs of the tests are borne by the patient, or his/her private health insurer (and the patient pays all/some of the consultant outpatient charge depending on health insurance cover). Instead, the consultant specialist may refer the patient to a GP, requesting that he/she prescribe specific diagnostic tests for a patient. In this case, the patient pays for the GP visit (in addition to any charges that applied for attending the consultant) and the costs of the diagnostic tests are borne by the hospital. These illustrations show that there is no consistency in how the cost burden (including the user's out-of-pocket burden) of diagnostic tests is allocated in the system.
- There are inconsistent approaches to supporting patients with long-term conditions, and these have implications for equity as well as efficiency. The provision of free prescription medicines, but not free GP care, for people with specified long-term conditions under the Long-Term Illness (LTI) Scheme establishes incentives that are likely to conflict with objectives to ensure appropriate care at the most appropriate location. The scheme provides free access to specific medicines for a set of chronic diseases but does not provide concurrent financial support for the patient to have that condition monitored or checked on a regular basis by a primary care provider. Elsewhere in the system, GP Visit cardholders are granted access to free GP care, but not free prescription medicines and the impact of this on primary care utilisation is not clear (e.g. the anticipated out-of-pocket burden of prescription costs may discourage GP utilisation amongst the eligible population).
- The rationale underpinning what conditions are included in the LTI Scheme is also not clear. For example, diseases of the circulatory system (e.g. stroke, heart



disease) are the leading cause of mortality in Ireland (DoHC, 2009) but these are not covered by the LTI Scheme.<sup>15</sup> Where an individual has multiple chronic conditions, it may be the case that none or only some of these are covered by the LTI Scheme.

The lack of involvement of private health insurance companies in health promotion and disease prevention initiatives was outlined in a review of the market in 2004. There has also been limited involvement by insurers in influencing the quantity, quality and appropriateness of care provided (Colombo *et al.*, 2004). There have been some recent developments in the insurance market in this area. For example, Vhi Healthcare has outlined intentions to increase the level of resources allocated to prevention, chronic disease management, and provision of care within the community. Vhi Healthcare has also started a screening project for Type 2 diabetes and cardiovascular risk (covering 2,000 customers), and they also run a dedicated 'nurseline' (used by 8,000 customers per month, Vhi Healthcare, 2008). Despite the traditional focus on hospital cover, the three main health insurance companies now offer a range of insurance products that provide outpatient cover, although there are no published estimates of the number of privately insured people whose policy includes outpatient cover.

However, it is not clear that the levels of reimbursement provided for different outpatient services in these policies have been strategically selected to promote specific patterns of use in the system. For example, it is not the case that people with outpatient cover are consistently incentivised to seek primary care as a first port of call. Table 10.1 outlines the range of private health insurance products that provide cover for outpatient care, focusing on the extent of cover provided for GP, ED and consultant specialist outpatient consultations. The average level of reimbursement offered for a private GP visit is €25, compared with €41 for an ED visit and €59 for a consultant visit. Expressed as a proportion of the estimated average cost of a GP/ED/consultant, there is no clear pattern in favour of primary care. As illustrated in Table 10.1, for some policies, the percentage reimbursement offered for GP care is lower relative to the percentage reimbursement offered on an ED or consultant visit. In other policies, the percentage reimbursement is similar or equal across the three types of visits, and in others, the percentage reimbursement is higher for GP care than for ED or consultant care. To encourage individuals to use primary care as their first port of call for most health problems, the level of reimbursement would need to be weighted more towards GP care than to hospital and specialist care.

<sup>15</sup> The LTI covers the cost of drugs (and medical and surgical appliances) that are directly related to treatment of the following illnesses: Acute Leukaemia, Cerebral Palsy, Cystic Fibrosis, Mental Handicap, Diabetes Insipidus, Diabetes Mellitus, Epilepsy, Haemophilia, Hydrocephalus, Mental Illness (in a person under 16), Multiple Sclerosis, Muscular Dystrophies, Parkinsonism, Phenylketonuria, Spina Bifida and Conditions arising from the use of Thalidomide (Available at: [www.hse.ie/eng/services/Find\\_a\\_Service/entitlements/Long\\_Term\\_Illness](http://www.hse.ie/eng/services/Find_a_Service/entitlements/Long_Term_Illness); last accessed: 20 June 2010).

**TABLE 10.1**  
Private Health Insurance Cover for GP, Emergency Department and Consultant Outpatient Visits

	Excess Payment (For All OPD) <sup>a</sup> (€)	GP Visit		Emergency Department Visit		Consultant Visit		% Cover Per Visit				
		Reimbursement per visit	Limit on no. of visits per year	Reimbursement per visit	Limit on no. of visits per year	Reimbursement per visit	Limit on no. of visits per year	GP visit <sup>c</sup>	ED visit <sup>d</sup>	Consultant visit <sup>e</sup>		
		€	No.	€	No.	€	No.					
<b>Vhi Healthcare</b>												
First Plan/Family Plan/Forward Plan Level 1	25	25	7	75	2	60	7	48	75	50		
First Plan/Family Plan/Forward Plan Level 2	25	35	7	75	2	75	7	67	75	63		
HealthSteps Silver	1	25	7	0	n/a <sup>b</sup>	60	7	48	-	50		
HealthSteps Gold	1	35	7	0	n/a	75	7	67	-	63		
Plan A / Plan B / Plan B Excess	300	13	none	13	none	39	none	25	13	33		
Plan A Option / Plan B Option	250	20	none	20	none	51	none	38	20	43		
Plan C / Plan C Option / Plan D / Plan E	200	20	none	20	none	51	none	38	20	43		
<b>Quinn Healthcare</b>												
Essential	250	20	none	20	none	51	none	38	20	43		
Essential Plus / Essential Gold	220	20	none	20	none	51	none	38	20	43		
PersonalCare / Family Care / HealthManager Plans / Credit Union	None	50%	none	50	none	50%	none	50	50	50		
<b>Aviva</b>												
Level 1 Everyday / Level 2 Everyday	None	30	25	60	3	60	none	57	60	50		
Level 1 Hospital / Level 2 Hospital	150	30	3	60	3	60	none	-	60	50		
Day-to-day plans	None	30	3	0	n/a	-	none	57	-	-		
Day-to-day 50 plans	None	30	15	0	n/a	70	none	57	-	58		
<b>Average reimbursement per visit</b>		<b>25</b>		<b>41</b>		<b>59</b>		<b>48</b>	<b>41</b>	<b>49</b>		

Notes: <sup>a</sup> This table refers only to outpatient cover for GP, ED and consultant visits. The insurance plans include cover for a range of other outpatient services. The excess payment applies to all outpatient services included under the plans.

<sup>b</sup> Not applicable.

<sup>c</sup> The average charge per private GP visit is estimated to be between €45-€60 (average of €52.50).

<sup>d</sup> The statutory charge for a self-referred ED visit is €100 in 2010.

<sup>e</sup> The average private consultant charge is estimated to be €120.

Sources: Competition Authority, 2009; AVIVA, 2010; QUINN Healthcare, 2010; Vhi Healthcare, 2010

#### 10.4 ISSUES AND IMPLICATIONS

The majority of health-care resources in the Irish system flow from individuals to intermediaries (i.e. tax revenue collected from individuals by the Government or private health insurance premiums collected by private health insurance companies). This ensures separation between what people pay for health care and what they receive. This allows, in principle, for health services to be financed on the basis of people's ability to pay, and delivered by providers in accordance with need (rather than ability to pay). However, there are a number of ways in which transparency in the public resource mechanism is reduced, and this is partly linked with the way in which public and private resources interact in the system.

While not more than 15 per cent of total health-care resources flow directly from individuals to providers via out-of-pocket payments, these are the dominant source of financing for specific services, and for specific groups in the population. In particular, approximately 65 per cent of the population pay out-of-pocket for GP care. The discussion in Section 10.3.4 has identified a number of areas where the incentive effects of user fees are interfering with effective resource allocation and integrated health-care delivery. Non-medical card holders are not incentivised to register with a primary care provider and there are barriers to seeking care at the most appropriate location and at the most appropriate time. In order for the health-care financing system to support resource allocation and integrated health care, the analysis implies that changes are required in the user fee structures in the system. User fees are linked with the entitlement structures (see Chapter 1) and in Chapter 15, a framework for adjusting the patterns of entitlements and user fees in the system to be more in line with resource allocation priorities is outlined.

#### 10.5 SUMMARY

Resources for health care can be collected from individuals in a number of different ways. In the Irish health-care system, the majority of health-care resources are collected by the Government through the tax system. Out-of-pocket payments by individuals account for 10-15 per cent, and private health insurance accounts for less than 10 per cent of total health-care resources.

The analysis in this chapter has highlighted a number of weaknesses in the way in which the health-care financing system in Ireland is implemented. The flow of public resources to the health-care system, and within the health-care system, is not transparent. There are complicated resource flows arising from public subsidisation of private activity in the system and these have implications for equity. The role of out-of-pocket payments has negative equity effects and the structure of payments establishes incentives for users (and providers) that interfere with objectives for continuity of care and care in the most appropriate location.

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**PART 6** | Sustainability of Health Care

**CHAPTER 11**

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# Chapter 11

## The Sustainability of Irish Health Expenditure

### 11.1 INTRODUCTION

Since 2000, Irish public (non-capital) health expenditure has increased by over 100 per cent in real terms. At over €15bn in 2009, it accounts for approximately 11.9 per cent of national income (up from 6.3 per cent in 2000). As a share of total public expenditure, health accounted for approximately 25 per cent of total public expenditure in 2009 and this proportion has remained largely unchanged since 2000. While the public sector accounts for approximately 80 per cent of total resources devoted to health care in Ireland, expenditure by the private sector (private insurance contributions and out-of-pocket payments by individuals) has also increased sharply in recent years (although at a slower rate than public expenditure).

Concerns over the sustainability of health expenditure are not unique to Ireland. With changing demographics and technology and an increasing burden of chronic disease, many countries are seeking to address the question of how to ensure the future sustainability of (public) health expenditure. Sustainability is a relative concept, as it involves an assessment of the level of (public) spending on health with reference to the level of national income/overall public expenditure. In Ireland, particular concern over sustainability has arisen with regard to state expenditure on pharmaceuticals and payments to pharmacists and with regard to state expenditure on pay and Chapters 12 and 13 discuss each of these issues in greater detail. In the current resource-constrained environment, measures which seek to ensure greater efficiencies in the use of existing resources are particularly important; Chapters 12 and 13 discuss such measures in relation to pharmaceuticals and staff costs, while Chapter 14 explores the potential for improvements in efficiency in the use of health-care resources in the acute public hospital sector.

In this chapter, we define firstly the concept of sustainability in the context of the health-care system (Section 11.2), before moving on to briefly discuss the drivers of health expenditure variations over time and across countries and mechanisms to ensure sustainability (Section 11.3). Section 11.4 examines Irish health expenditure over time and in comparative context, its determinants (with a particular focus on health prices) and detailed trends in Irish public health expenditure since the establishment of the HSE in 2005. Section 11.5 summarises and concludes.

## 11.2 DEFINITION OF SUSTAINABILITY

In the context of health care, sustainability is defined by the WHO as the '*ability to meet the needs of the present without compromising the ability to meet future needs*' (Roberts, 1998; 59). Thomson *et al.* (2009a) distinguish between the concepts of economic and fiscal sustainability. Economic sustainability refers to the growth in health-care spending as a proportion of national income; spending on health is economically unsustainable if the opportunity cost of health spending exceeds the value produced by that spending. Fiscal sustainability on the other hand refers to the ability of public revenue to meet public expenditure on health care. Regarding the US and EU, the general assessment is that current rates of growth in health spending are likely to be economically sustainable in the absence of prolonged recessions. However, in a stagnant or shrinking economy, growth in health spending as a proportion of national income could threaten other areas of economic activity so as raise legitimate concerns about economic sustainability (Thomson *et al.*, 2009a).

## 11.3 DRIVERS OF HEALTH EXPENDITURE AND MECHANISMS TO ENSURE SUSTAINABILITY

### 11.3.1 What Drives Health Expenditure Variations across Time and across Countries?

Total per capita expenditure on health increased by an average of 6.4 per cent per annum across the EU-15, Australia, Canada, New Zealand and the US over the period 2000 to 2007 (OECD, 2009). What are the factors driving these increases in expenditure? Cross-country comparisons of the determinants of health expenditure typically focus on three main factors, namely, national income, population age structure and institutional features of the health-care system (Propper, 2001). Such studies generally find that aggregate income is the most important factor, with increases in income leading to proportionately equal increases in health-care expenditure.<sup>1</sup> Indeed, a recent analysis of inter-country differences in health-care expenditure concluded that 90 per cent of the variation in health-care spending across the 30 OECD countries examined was due to differences in GDP per capita (Congressional Research Service, 2007). Related to the impact of national income on health-care spending is the role played by rising consumer expectations. The role of consumer expectations cannot be underestimated; Layte *et al.* (2007) highlighted the divergence between Irish experience in relation to mortality and individuals' perceptions of their own health. With rising incomes and education levels, individuals' expectations of what the health service can and should deliver create challenges for sustainability.

<sup>1</sup> Most of the earlier studies classed health care as a luxury, with increases in income leading to proportionately greater increases in health-care expenditure. However, a more recent paper by Baltagi *et al.* (2010) examines the long-run relationship between health-care expenditure and income using a panel of 20 OECD countries observed over the period 1971-2004. They find that health care is a necessity rather than a luxury, with increases in income leading to proportionately smaller increases in health-care expenditure over time.

While the potential impact of demographic pressures (in terms of both the absolute size and age composition of the population) on health systems has been widely discussed, empirical evidence suggests that population ageing typically explains only a small proportion of health expenditure growth over time (Bodenheimer, 2005a; Schulz, 2005; Lee, 2007).<sup>2</sup> Population ageing may have more significant implications for the mix of health spending over time, rather than its absolute level (e.g. a greater reliance on primary, community and continuing care services over acute hospital services). A large driver of health-care cost is the 'end-of-life' cost rather than age *per se*, so that an ageing population may simply postpone such costs (Wanless, 2002). In addition, there is some evidence to suggest that the end-of-life cost is lower for those who die at older ages, although the costs of long-term care increase with age of death (McGrail *et al.*, 2000). There is also some evidence to suggest that, as life expectancy increases, the number of disability-free life years gained may be increasing at a greater rate (Bodenheimer, 2005a). In summary, the likely effects of population ageing on overall health-care expenditure are complex and often conflicting and thus difficult to predict.

Approximately 80 per cent of all health expenditures relate to the treatment of chronic disease (Bodenheimer, 2005b) and this proportion (and the proportion with multiple morbidities) is likely to increase with population ageing and adverse trends in diet, exercise and obesity (DoHC, 2008). As with demographic change, the potential impact of increasing prevalence of chronic disease on overall health-care expenditure is difficult to predict. While increasing rates of chronic disease may increase the demand for various health-care services, changing models of care (i.e. a greater emphasis on prevention and treatment of chronic disease, rather than diagnosis and treatment of acute conditions) may mean that the impact on overall health-care expenditure is more modest. As with population ageing, the greater impact may be on the mix of health-care services that are provided, with a greater reliance on primary, community and continuing care over acute hospital services.

The role of supply-side factors such as rising medical prices, technological change, increasing capital stock and labour costs, the regulatory regime governing behaviour in the health sector and the incentive structure facing health-care providers are also important in explaining increasing health-care expenditure. While empirical evidence suggests that the impact of technological change on health expenditure growth is large and significant (and often larger than that of demographic change)<sup>3</sup>, the reality

<sup>2</sup> Layte(2009) predict the likely impact of demographic change on the demand for, and delivery of, Irish health-care services up to 2021. They argue that while the Irish population is still relatively young by international standards, future population ageing, along with strong population growth (driven by large inward migration over recent years, and a high birth rate), has the potential to place considerable pressures on the Irish health service. While the proportion of the population that is aged 65 years and older is currently 11.0 per cent, and the proportion aged 85 years and older is currently 1.1 per cent, these proportions are projected to increase to 15.4 per cent and 2.1 per cent respectively by 2021. In addition, the population is expected to reach 5.1m in 2021, up from 4.2m in 2006 (Layte, 2009).

<sup>3</sup> The OECD estimate that between 1981 and 2002 the average growth in per capita health-care spending (across 30 OECD countries) amounted to 3.6 per cent, of which 0.3 percentage points were accounted for by pure demographic effects and

is more complex. While most technological advances lead to higher costs, many are quality-enhancing and can result in significant benefits for population health. Higher costs can result from increased utilisation, from an extension in the range and scope of treatments available, from an expansion in the number of people and indications treated and from the substitution of existing, cheaper technologies (Thomson *et al.*, 2009b). The role of health technology assessment in assessing the cost effectiveness of new technologies is, therefore, crucially important in this context.

Given the labour intensity of the sector, the impact of labour costs on health expenditures is potentially very significant. In Ireland, labour costs account for approximately 50 per cent of total health expenditure<sup>4</sup>; therefore, changes in the level and type of employees have important implications for spending on the health services. While the potential for productivity improvements in labour intensive sectors can be limited (Baumol, 1966), productivity improvements in the health sector are not impossible; increased use of IT in the operation and management of the health service was recommended by the 2003 Commission on Financial Management and Control Systems in the Health Service as an aid to increasing productivity in the Irish health service (Brennan, 2003). Reconfiguring the skills mix of the health workforce is an additional policy lever.

The incentive structure facing health-care providers, which is in large part determined by the way in which providers are reimbursed for the services that they provide, has important implications for health-care expenditure. A study of a cross section of 19 OECD countries in 1987 found that health-care expenditure was 11 per cent higher in countries where fee for service was the dominant form of remuneration for outpatient care in comparison with countries with capitation systems (Gerdtham *et al.*, 1992).

On a more macro level, the characteristics of the health system and the general macroeconomic environment can have important implications for health expenditure levels and growth. The degree to which the health system is oriented towards primary care has been found to influence health-care expenditure. International comparisons show higher health-care expenditure in countries with weaker primary care (Starfield *et al.*, 2002), while in European countries, primary care-based systems are found to be more cost effective (Saltman *et al.*, 2005). In addition, Welch *et al.* (1993) find that Medicare expenditures are lower in US states with higher rates of primary care doctors per capita. The supply of primary care doctors and better primary health care is associated with lower total spending on

---

2.3 percentage points by income effects. The residual growth, i.e. that due to technology effects, was estimated at around 1 per cent per year (OECD, 2006).

<sup>4</sup> The proportion of expenditure accounted for by labour costs varies across the health sector; for example, in 2008 in Ireland, pay accounted for approximately 70 per cent of total expenditure in the acute hospitals sector, and approximately 35 per cent in the primary, community and continuing care sector (see also Section 11.4).

health, possibly because of better preventive care and lower hospitalisation rates (Starfield *et al.*, 2005).

Finally, one of the reasons put forward for the high cost of health care in the US is the cost of administration, and, in particular, the role of multiple payers (i.e. insurance companies) in inflating such costs. In 2002, the administrative costs of the Medicare programme were 3.0 percent of the total Medicare budget, in comparison with 6.7 percent for the Medicaid programme and an average of 12.8 per cent for private insurance plans (Bodenheimer, 2005c). Empirical evidence shows that administrative costs are higher in systems with multiple payers and overall health-care spending is higher in countries with multiple payers (Canadian Institute for Health Information, 2005). The extent to which health-care systems are integrated (in terms of financing, planning and delivery) is significant for administrative costs; the US integrated health-care system, Kaiser Permanente, typically spends about 4 percent of its budget on administration (Bodenheimer, 2005c). See also Case Study 2.8 in Part 2.

### 11.3.2 Ensuring Sustainability

Attempts to control the growth in public health expenditure across the OECD initially concentrated on macro reforms such as caps on spending or employment freezes. However, *'with little attention paid to the underlying structure of incentives, there is growing doubt about the capacity of purely macroeconomic approaches to sustain overall spending control'* (OECD, 1994; 7). Essentially, there are three broad approaches to addressing the problem of fiscal sustainability, with the final approach also helping to ensure economic sustainability:

- Increase public revenue so that public health obligations can be met.
- Lessen those obligations to the extent that they can be met from existing sources of revenue.
- Improve the capacity of the health system to convert resources into value (Thomson *et al.*, 2009a).

In the current economic environment, the degree to which revenue from public sources can be increased (via taxation or social health insurance) is limited. Lessening the obligations of the public health system essentially involves making decisions about the breadth, height and depth of coverage of the public health system. While limiting or reducing the breadth (i.e. the proportion of the population that is covered), height (i.e. the proportion of the cost that is covered by public funds) and/or depth (i.e. the number and type of benefits provided under the public system) of coverage of the public health system may seem an attractive mechanism for improving fiscal sustainability, the effects on economic sustainability may not be so clear cut. For example, Germany limits the *breadth* of coverage of the public

system by allowing richer individuals to purchase substitutive private health insurance. However, empirical research has estimated that, rather than generating savings for the State, the public system loses about €750m per annum as a result of richer individuals opting out of public coverage; a combination of reduced social insurance contributions and a riskier public insurance pool explain this result (Thomson *et al.*, 2009b).

Similarly, limiting the *height* of public coverage by shifting the responsibility for financing health care to individuals via increased user fees has an ambiguous effect on overall health expenditure. In particular, user fees lower the use of both appropriate as well as inappropriate care (even at low levels) and are disproportionately concentrated on the poorer, older and unhealthier sections of society (see Chapters 9 and 10 for a more detailed discussion). Even with exemptions for such population groups, the level of the charge for the non-exempted population needs to be sufficiently high to effect significant savings (Birch, 2004). Increasing cost-sharing highlights the conflict that may arise between measures that seek to ensure fiscal sustainability and measures that seek to ensure economic sustainability; simply shifting the responsibility for financing health care to individuals (and in particular, those most in need of health care), while attractive from a fiscal point of view, does not ensure long-term economic sustainability. However, with appropriate health technology assessment procedures and criteria, reducing the *depth* of coverage can be successful in improving both fiscal and economic sustainability (without compromising population health outcomes).

To tackle the unsustainability of health spending from both a fiscal and economic perspective requires measures that seek to improve the capacity of the health system to convert resources into value. Improving the way in which services are delivered is a key mechanism for ensuing sustainability. Such measures include shifting care from resource-intensive hospital settings to outpatient or primary care settings, promoting the use of the GP as a gatekeeper to hospital services and encouraging the use of day surgery over in patient stays. As health-care providers are ultimately responsible for generating a large proportion of health-care spending, it is important to ensure that the methods by which they are paid incentivise the provision of equitable and efficient services (Thomson *et al.*, 2009a). Remunerating doctors on a capitation (rather than fee for service) basis and funding hospitals on a casemix (i.e. adjusting for the nature and intensity of treatments undertaken) or prospective budget basis rather than on a simple retrospective global budget basis can be effective mechanisms for ensuring fiscal and economic sustainability.

In addition, investing in IT and developing a comprehensive structure for the cost-effectiveness analysis of pharmaceuticals and other medical therapies, as well as promoting population health via increased investment in preventive care and health promotion, are important tools in slowing the growth in health spending



(Commonwealth Fund, 2009). Similarly, the way in which the health system is financed and in which resources are allocated have important implications for sustainability. Measures which are likely to enhance sustainability include allocating resources on a risk-adjusted capitation basis (to ensure that resources are matched to need), creating a smaller number of insurance pools (to ensure a broader risk profile) and, where relevant, using more stable sources of taxation (Thomson *et al.*, 2009a). See also Chapter 9.

## 11.4 IRISH HEALTH-CARE EXPENDITURE OVER TIME AND IN COMPARATIVE CONTEXT

### 11.4.1 Fiscal and Economic Sustainability

As in other countries, there is widespread concern that the existing publicly funded health-care system in Ireland is unsustainable.<sup>5</sup> While most commentary focuses on the fiscal sustainability of the system (i.e. the proportion of total government spending that is devoted to health care), the overall economic sustainability of the system (i.e. the proportion of national income devoted to health care) is of ultimate importance for societal welfare.

In terms of economic sustainability, while Irish health-care expenditure as a proportion of gross national income (GNI) increased from 7.3 per cent in 2000 to 9.0 per cent in 2007, health expenditure as a proportion of GNI has also risen across the EU and OECD, with the result that in 2007 Ireland still ranked among the low spenders on health in terms of health expenditure as a proportion of GNI (see Table 11.1).<sup>6</sup> However, recently available data on total health expenditure for 2009 suggest that this proportion has risen sharply in the last three years. While the 2009 data are not based on the OECD System of Health Accounts (SHA) definition of health spending and are therefore not comparable with those in Table 11.1, total health expenditure as a proportion of GNI amounted to 15.2 per cent in 2009.<sup>7,8</sup>

<sup>5</sup> See Layte, 2009.

<sup>6</sup> While health expenditure is usually expressed as a proportion of GDP, the large divergence between Irish GDP and GNP/GNI figures means that, for comparative purposes, it is more appropriate to express health expenditure as a proportion of GNP/GNI (see also Nolan *et al.*, 2004).

<sup>7</sup> Total health expenditure in 2009 amounted to €19.7bn (DoHC, personal communication; 01 July 2010). As discussed in Chapter 6, approximately 20 per cent of Irish total health expenditure is classed as social spending for the purposes of the OECD SHA returns. Therefore, adjusting the €19.7bn figure downwards by 20 per cent results in a ratio of total health expenditure to GNI for 2009 of approximately 12.1 per cent.

<sup>8</sup> While the latest OECD data on total health expenditure refer to 2007 and DoHC data on total health expenditure for 2007 and 2008 were not available at time of writing, Table A6.1 contrasts recent trends in *public* health expenditure and national income, illustrating the sharp drop in national income that has occurred since 2007 (over 20 per cent in nominal terms, in comparison to a 6.7 per cent nominal increase in public health expenditure).

**TABLE 11.1**  
Total Health Expenditure as a % of GNI, 2000 and 2007

Country	2000	2007
Australia	9.0	9.1 <sup>a</sup>
Canada	9.1	10.5
Germany	10.4	10.4
Ireland <sup>b</sup>	7.3	9.0
Netherlands	7.8	9.8
New Zealand	8.9	9.9
Sweden	8.4	9.2
UK	7.2	8.4
US	13.2	17.3
<b>EU-15<sup>c</sup></b>	<b>8.7</b>	<b>9.6</b>

*Notes:* Total health expenditure in 2009 amounted to €19.7bn (DoHC, personal communication; 01 July 2010). As discussed in Chapter 6, approximately 20 per cent of Irish total health expenditure is classed as social spending for the purposes of the OECD SHA returns. Therefore, adjusting the €19.7bn figure downwards by 20 per cent results in a ratio of total health expenditure to GNI for 2009 of approximately 12.1 per cent.

<sup>a</sup> 2005

<sup>b</sup> The Irish figures are affected by high GNI figures over this time period, but the large increase in health expenditure is still evident (see Table A6.1. for an update for Ireland, albeit using different data on public health expenditure, to 2009).

<sup>c</sup> The EU-15 figure for 2007 excludes Luxembourg and Portugal (as 2007 data are not available for these countries).

*Sources:* Nolan, 2008; calculated from OECD, 2009

The proportion of total public expenditure devoted to health in Ireland has increased from 14.5 per cent in 2000 to 17.1 per cent in 2007 (Table 11.2). However, Irish experience regarding the proportion of government spending devoted to health (up to 2007 at least) is no different to that of other EU and OECD countries over the period. While the latest comparable OECD figures relate to 2007 (and are based on the definition of health spending used in the OECD System of Health Accounts), an attempt is made in Table A6.2 to update the Irish figures to 2009. However, as the data are sourced from Department of Finance figures on total public expenditure, they are not directly comparable with those presented in Table 11.2. On the basis of the figures from the Department of Finance, Irish public health expenditure as a proportion of total public expenditure increased slightly over the period 2000-2009, but actually declined by approximately one percentage point between 2007 to 2009 (from 26.3 per cent to 25.4 per cent).

**TABLE 11.2**  
Public Health Expenditure as a % of Total Public Expenditure, 2000 and 2007

Country	2000	2007
Australia	16.6	17.2 <sup>a</sup>
Canada	15.1	18.1
Germany	18.2	18.2
Ireland	14.5	17.1
Netherlands <sup>b</sup>	11.4	n/a
New Zealand	15.4	18.5 <sup>a</sup>
Sweden	12.4	14.1
UK	14.8	15.6
US	16.9	19.4
<b>EU-15<sup>c</sup></b>	<b>13.5</b>	<b>15.4</b>

*Notes:* Total Public Expenditure is 'General Government Total Outlays' (see OECD, 2009 for fuller description). The latest available data refer to 2007 (see Table A6.2 for an update for Ireland to 2009, albeit using different data on public health expenditure).

<sup>a</sup> 2006.

<sup>b</sup> The latest available figure for the Netherlands is 2002 (12.0 per cent).

<sup>c</sup> Data for the EU-15 exclude Belgium in both 2000 and 2007 and also Luxembourg, Netherlands and Portugal in 2007. In 2006, when data for Belgium and Netherlands only are missing, the EU-15 proportion was 15.4 per cent.

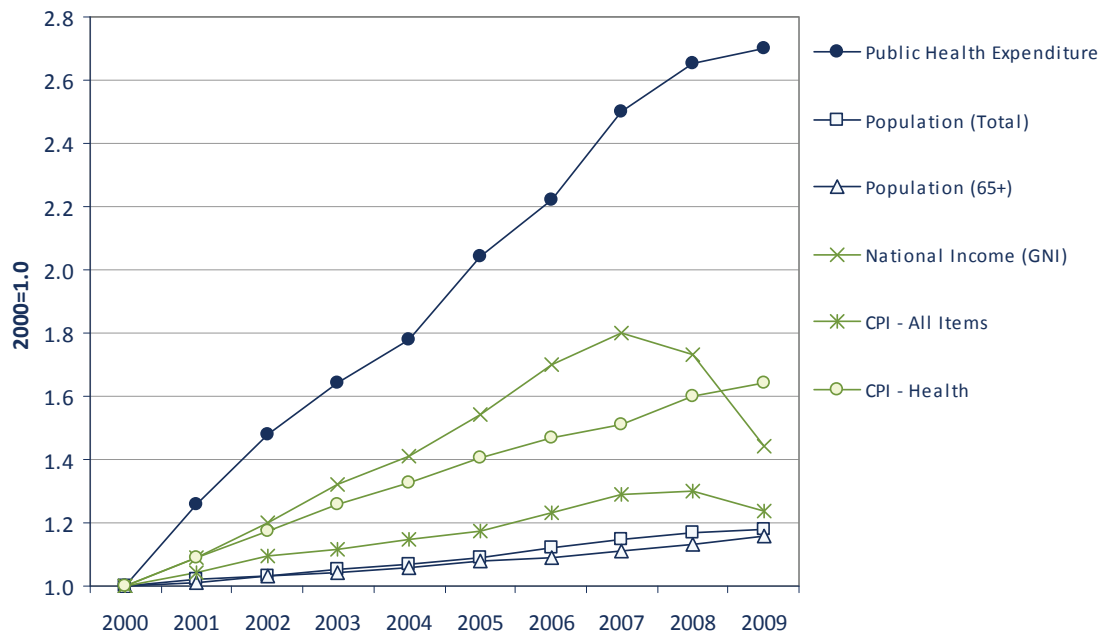
*Source:* OECD, 2009

### 11.4.2 Drivers of Irish Public Health Expenditure Changes

While the determinants of health-care expenditure differences across time and across countries are varied and complex, empirical analyses of the determinants of health expenditure growth in developed countries tend to focus on the impact of national income, population growth (and composition) and prices. National income is found consistently to be the most significant factor, with little significant effect found for population size or composition. Examining trends in Irish public health expenditure, national income, population size and composition and prices reveals that the same correlations are largely supported by Irish experience over the period 2000-2009 (Figure 11.1). While the size of the population increased by 17.7 per cent over the period 2000-2009, the share of the population aged over 65 years actually declined slightly over the period. The growth in national income was much more substantial, as was the change in both the overall price level and the change in health prices.

**FIGURE 11.1**

Trends in Public Health Expenditure, Population Size, Population Composition, National Income and Prices, 2000-2009 (2000=1)



Notes: Calculations for public health expenditure and GNI are based on the nominal figures. 2009 figures for GNI are not yet available from the CSO; taken from forecasts from Barrett *et al.*, 2010).

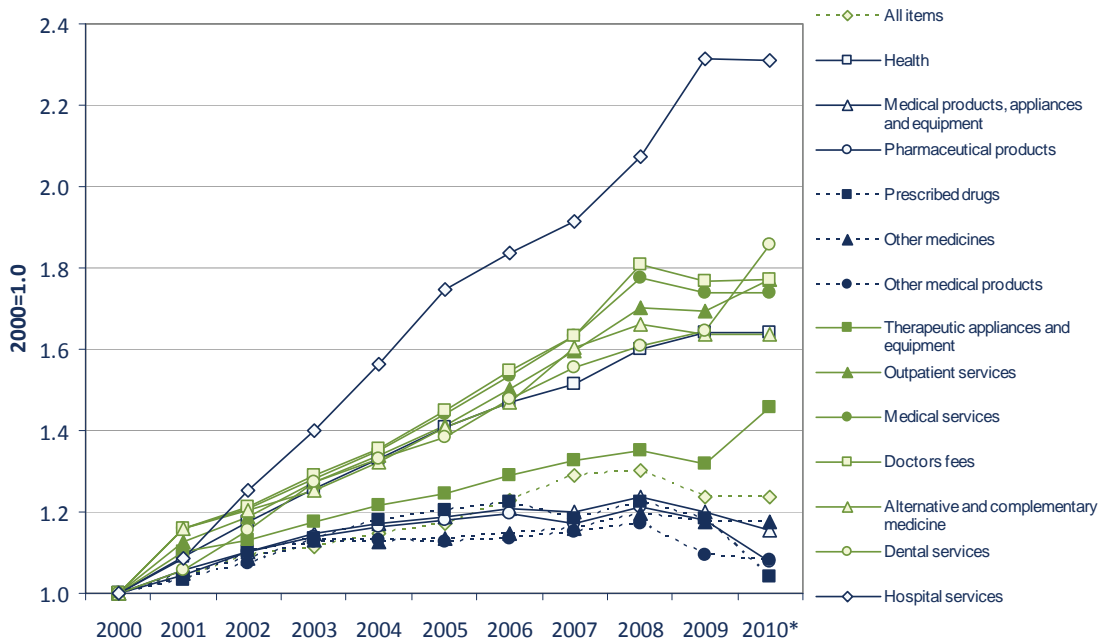
Sources: Calculated from Barrett *et al.*, 2010; DoHC, 2009; CSO Database Direct ([www.cso.ie/px](http://www.cso.ie/px)) [last accessed 27 June 2010]

Looking in more detail at Irish health prices, of the twelve CPI group headings of expenditure, 'health' recorded the second highest rate of increase over the period 2000-2010 (health prices increased by 64.2 per cent over the period, in comparison with 23.9 per cent for 'all items').<sup>9</sup> Looking in more detail at consumer prices within the 'health' heading over the period 2000 to 2010 (Figure 11.2), by far the largest increases were observed for the categories 'hospital services' and 'dental services'. Growth in 'pharmaceutical products' and 'prescribed drugs' has been less than the average CPI growth, particularly since December 2009 (see also Chapter 12 on pharmaceutical pricing and reimbursement policy). While overall and health prices remained relatively stable between December 2009 and April 2010, some components of health prices have continued to increase, most notably 'dental services'.

While comparable data on health prices across countries are difficult to find, data for selected EU countries are available from the EU Harmonised Index of Consumer Prices (HICP) (Figure 11.3). The higher than average growth for health prices is common across all countries. Across the six countries for which data are available, Ireland recorded the highest growth rate for both overall and health prices over the period 2000-2009.

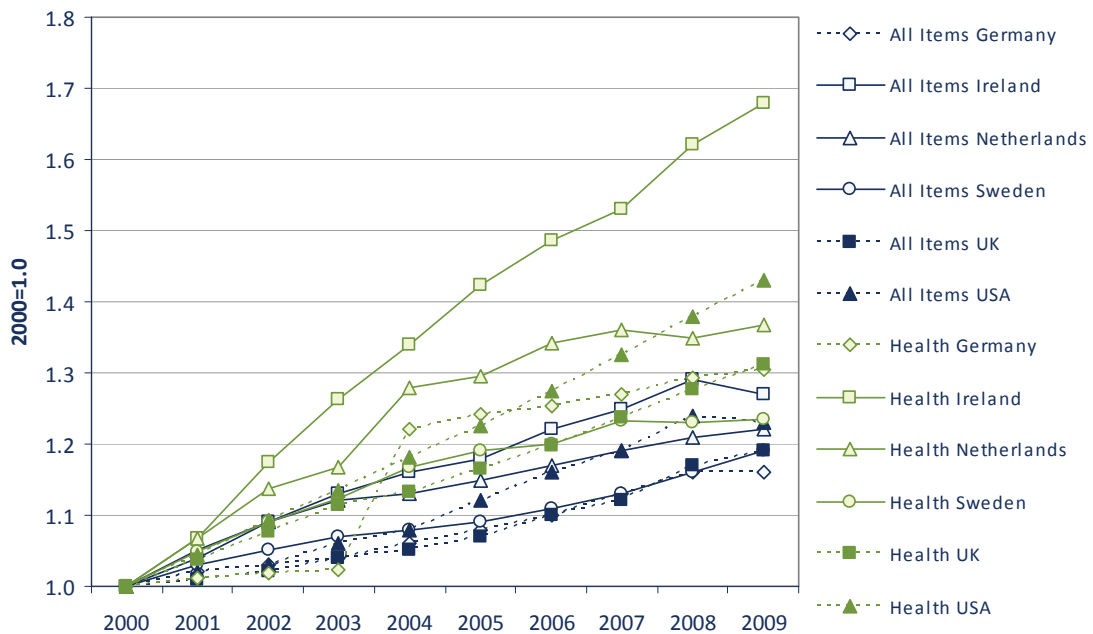
<sup>9</sup> 'Education' recorded the highest price growth over the period 2000-2010 (at 82.4 per cent). Latest available data for 2010 refer to April. See CSO Database Direct ([www.cso.ie/px](http://www.cso.ie/px)) [last accessed 27 June 2010].

**FIGURE 11.2**  
Consumer Price Index (Health Detail), 2000-2010 (at December, Unless Otherwise Stated, Dec 2000=1)



Note: \* 2010 data refer to April.  
Source: CSO Database Direct ([www.cso.ie/px](http://www.cso.ie/px)) [last accessed 27 June 2010]

**FIGURE 11.3**  
Harmonised Index of Consumer Prices (Selected Countries, All Items and Health), 2000-2009 (2000=1)



Notes: Data for Australia, Canada and New Zealand are not available from Eurostat.  
All figures refer to annual averages.  
The Harmonised Index of Consumer Prices (HICP) is an internationally comparable index of inflation across the Euro Area of the EU. In contrast to the Irish CPI, it excludes the cost of owner-occupied housing.  
Source: Eurostat, personal communication [21 May 2010]

### 11.4.3 Detailed Trends in Irish Public Health Expenditure

Due to the difficulty in gathering a consistent time series on private health expenditure in Ireland and as the public sector accounts for approximately 80 per cent of Irish health expenditure (OECD, 2009), we concentrate here on a more detailed analysis of trends in (non-capital) public health expenditure in Ireland over the period 2005-2009.<sup>10</sup> Looking in more detail at the trends in the various components of public health expenditure in Ireland is complicated by the significant re-organisation of the system that occurred with the establishment of the HSE in 2005. The creation of new divisions and functions has meant that comparable data on detailed components of public health expenditure in Ireland are now only available for the period since 2005/2006 (and in many cases, there is an on-going re-allocation of roles and responsibilities between directorates of the HSE that complicates any analysis of trends). Where possible, data are presented for the period 2000-2009, but in general, the following discussion refers to the period 2005/2006-2009.

Over the period 2006-2009, total HSE (non-capital) expenditure grew by approximately 18 per cent in real terms. The largest components of HSE expenditure are the PCCC and NHO directorates (accounting for 56.4 per cent and 35.6 per cent respectively of total HSE expenditure in 2009).<sup>11</sup> While the share of total HSE expenditure devoted to PCCC has remained relatively stable over the period 2006-2009, the share accounted for by the NHO has declined from 37.2 per cent in 2006 to 35.6 per cent in 2009 (see Table 1.2 in Chapter 1).<sup>12</sup> Expenditure in the corporate and shared services directorate accounts for just over 6 per cent of total HSE expenditure.<sup>13</sup>

<sup>10</sup> While public capital health expenditure increased by 15.2 per cent in real terms over the period 2000-2009, the growth in public current health expenditure was far greater (123.8 per cent in real terms), with the result that capital health expenditure accounted for only 2.8 per cent of total public health expenditure in 2009 (in comparison with 5.4 per cent in 2000) (calculated from DoHC, 1999 and DoHC, 2009).

<sup>11</sup> As discussed in more detail in Chapter 8, since October 2009 the PCCC and NHO directorates of the HSE have been combined to form an Integrated Services Directorate (ISD).

<sup>12</sup> Appendix Table A6.3 provides some context for the pre-HSE period. Pre-HSE programme areas are not comparable with post-HSE directorates, although it is clear that the hospitals sector had been accounting for a decreasing share of gross public health expenditure over the period 2000-2004, with expenditure on 'community health services' (which includes many of the services currently under the aegis of the PCRS), community welfare and disability services increasing strongly over the period 2000-2004.

<sup>13</sup> However, as noted in Chapter 1, expenditure under the corporate and shared services directorate also includes expenditure on pensions, which increased sharply over the period 2008 to 2009 as a result of increased public health service retirements (from €342.0m in 2008 to €524.5m in 2009) (HSE, personal communication; 15 April 2010). While expenditure on corporate and shared services increased by approximately 46 per cent over the period 2006-2009, when pension costs are excluded, expenditure on corporate and shared services increased by 11.7 per cent in real terms over the period 2006-2009. In addition, the on-going centralisation of expenditure and re-classification of functions between directorates of the HSE means that it is difficult to assess accurately the trend over time in the various components of expenditure.

While pay accounts for approximately 50 per cent of total HSE expenditure, expenditure on non-pay items (and in particular, in the PCCC directorate where schemes expenditure is concentrated) has risen sharply over the period 2005-2009 (Table 11.3).<sup>14</sup>

**TABLE 11.3**  
Pay and Non-Pay Components of HSE Expenditure, 2005-2009 (Gross €m)

	2005	2006	2007	2008	2009	% change 05-09 <sup>a</sup>
Pay	5,751.7 (51.0)	6,328.2 (51.4)	6,881.4 (49.7)	7,245.7 (48.6)	7,576.4 (50.1)	21.6
Non-Pay (Schemes)	1,997.1 (17.7)	2,232.2 (18.1)	2,470.9 (17.9)	2,797.9 (18.8)	2,874.8 (19.0)	32.8
Non-Pay (excl. Schemes)	3,525.1 (31.3)	3,751.9 (30.5)	4,365.1 (31.5)	4,635.5 (31.1)	4,592.0 (30.4)	20.2
Health Repayment Scheme <sup>b</sup>	- -	- -	119.8 (0.9)	236.5 (1.6)	79.4 (0.5)	-
<b>Total Expenditure</b>	<b>11,274.0</b> <b>(100)</b>	<b>12,312.2</b> <b>(100)</b>	<b>13,837.1</b> <b>(100)</b>	<b>14,915.5</b> <b>(100)</b>	<b>15,122.5</b> <b>(100)</b>	<b>23.8</b> <b>(100)</b>

Notes: Percentage of Total Gross Expenditure in parentheses.

<sup>a</sup> % change refers to the growth in real expenditure over the period 2005-2009.

<sup>b</sup> The Health Repayment Scheme (which provides for the refund of those who were charged for services in nursing homes even though there was no legal basis for the charges) came into effect in 2007.

Sources: HSE, personal communications [04 November 2009; 17 February 2010]

Looking first at pay expenditure, Table 11.4 illustrates that pay for the 'medical/dental', 'nursing' and 'other health and social care professionals' grades accounts for approximately 62 per cent of total HSE expenditure on pay. In terms of whole time equivalents, these grades accounted for 56 per cent of total whole time equivalents in 2009 (Table 11.5). Over the period 2005-2009, the largest increase in employment occurred for the 'other patient and client care' grade, followed by 'other health and social care professionals' and 'medical/dental' grades.<sup>15</sup> Overall, approximately 85 per cent of total HSE expenditure on pay is accounted for by basic pay and employer's PRSI payments, although this varies substantially across grades.<sup>16</sup> See Chapter 13 on staff costs for further discussion of these issues.

<sup>14</sup> The proportion of expenditure accounted for by labour costs varies across the health sector however; for example, in 2008, pay accounted for 70.1 per cent of total expenditure in the NHO directorate, and 35.4 per cent in the PCCC directorate (HSE, personal communication; 17 February 2010).

<sup>15</sup> Appendix Table A6.4 illustrates that the increase in employment for the 'management and administration' grade occurred largely before 2005. In addition, a more detailed analysis of the composition of the 'management and administration' category over the period 2000 to 2009 reveals that much of the growth since 2005 has occurred in the higher clerical grades (see Chapter 13).

<sup>16</sup> This varies substantially across grades; in 2008, nearly 23 per cent of the pay of 'medical/dental' staff, and approximately 19 per cent of the pay of 'nursing' staff, was accounted for by other payments (e.g. overtime, on-call allowances, shift payments, night duty payments, weekend payments, etc.) (see Chapter 13 for further discussion)

**TABLE 11.4**  
HSE Pay Expenditure, 2005-2009 (Gross €m)

	2005	2006	2007 <sup>a</sup>	2008	2009	% change 07-09 <sup>b</sup>
Management/Administration	-	-	844.9 (12.3)	878.5 (12.1)	899.7 (11.9)	7.1
Medical/Dental	-	-	1,084.6 (15.8)	1,158.3 (16.0)	1,235.0 (16.3)	14.5
Nursing	-	-	2,405.0 (34.9)	2,500.3 (34.5)	2,544.7 (33.6)	6.4
Other Health and Social Care Professionals	-	-	808.9 (11.8)	866.3 (12.0)	895.7 (11.8)	11.4
Support Services	-	-	1,181.3 (17.2)	1,240.5 (17.1)	1,268.0 (16.7)	8.0
Maintenance/Technical	-	-	87.6 (1.3)	89.7 (1.2)	85.8 (1.1)	-1.5
Superannuation - Pensions	-	-	373.6 (5.4)	404.9 (5.6)	448.2 (5.9)	20.7
Superannuation - Gratuities	-	-	95.5 (1.4)	107.1 (1.5)	199.2 (2.6)	109.9
<b>Total Pay Expenditure</b>	-	-	<b>6,881.4</b> <b>(100)</b>	<b>7,245.7</b> <b>(100)</b>	<b>7,576.4</b> <b>(100)</b>	<b>10.7</b>

Notes: Percentage of Total Gross Expenditure in parentheses.

<sup>a</sup> HSE Pay Expenditure for all employees (statutory and voluntary agencies) is only available from 2007 onwards.

<sup>b</sup> % change refers to real expenditure growth over the period 2007-2009.

Sources: HSE, personal communications [04 November 2009; 17 February 2010]

**TABLE 11.5**  
Whole Time Equivalents (WTEs) by HSE Pay Expenditure Category, 2005-2009

	2005	2006	2007	2008	2009	% change 05-06 <sup>a</sup>	% change 07-09 <sup>a</sup>
Management/Administration	16,699 (16.4)	17,262 (16.2)	18,043 (16.2)	17,967 (16.2)	17,611 (16.0)	3.4	-2.4
Medical/Dental	7,266 (7.1)	7,712 (7.3)	8,005 (7.2)	8,109 (7.3)	8,083 (7.4)	6.1	1.0
Nursing	35,248 (34.6)	36,737 (34.6)	39,006 (35.0)	38,108 (34.3)	37,466 (34.1)	4.2	-3.9
Other Health and Social Care Professionals	13,952 (13.7)	14,913 (14.0)	15,705 (14.1)	15,980 (14.4)	15,973 (14.6)	6.9	1.7
Support Services	13,227 (13.0)	12,910 (12.1)	12,900 (11.6)	12,631 (11.4)	11,906 (10.8)	-2.4	-7.7
Other Patient and Client Care	15,586 (15.3)	16,739 (15.8)	17,846 (16.0)	18,230 (16.4)	18,714 (17.1)	7.4	4.9
<b>Total Whole Time Equivalents</b>	<b>101,978</b> <b>(100)</b>	<b>106,273</b> <b>(100)</b>	<b>111,505</b> <b>(100)</b>	<b>111,025</b> <b>(100)</b>	<b>109,753</b> <b>(100)</b>	<b>4.2</b>	<b>-1.6</b>

Notes: Percentage of Total in parentheses.

Figures refer to whole time equivalents and exclude staff on career breaks and home helps.

<sup>a</sup> From March 2007, a change in methodology resulted in the inclusion of certain posts and grades not previously counted, as well as agencies subsumed into the HSE (CSO, 2009; DoHC, personal communication; 30 June 2010). For that reason, it is not accurate to make a direct comparison between pre- and post-2007 figures (see also Chapter 13).

Sources: HSE, 2010; DoHC, 2009

Turning to non-pay expenditure on schemes, the vast majority of this expenditure is accounted for by expenditure by the Primary Care Reimbursement Service (PCRS) and there has been substantial re-allocation of functions between Local Health Offices (LHOs) and the PCRS over the period 2006-2009. This means that it is difficult to paint an accurate picture of expenditure change in the detailed components over



the period, but it is clear from Table 11.6 that expenditure on drugs and medicines, including payments to community pharmacists, have experienced substantial rates of growth over the period 2005-2009 (see Chapter 12 for further discussion of the cost of the GMS and community drugs schemes in Ireland). Finally, expenditure on the remaining component of non-pay expenditure (i.e. excluding schemes) has remained relatively stable over the period 2007-2009 (Table 11.7).

**TABLE 11.6**  
HSE Non-Pay Expenditure (Schemes), 2005-2009 (Gross €m)

	2005	2006	2007	2008	2009	% change 05-09 <sup>a</sup>
GMS GP Fees and Allowances	382.1 (19.1)	381.9 (17.1)	415.1 (16.8)	465.0 (16.6)	454.4 (15.8)	9.8
GMS Pharmacy Fees	148.3 (7.4)	166.7 (7.5)	182.0 (7.4)	246.5 (8.8)	193.7 (6.7)	20.6
GMS Pharmacy Drugs/ Medicines	658.9 (33.0)	747.1 (33.5)	808.9 (32.7)	881.2 (31.5)	984.9 (34.3)	37.9
Drugs Payment Scheme	328.6 (16.5)	353.4 (15.8)	400.7 (16.2)	379.7 (13.6)	370.6 (12.9)	4.1
Long Term Illness Scheme	116.1 (5.8)	118.7 (5.3)	133.1 (5.4)	145.8 (5.2)	150.1 (5.2)	19.3
High Tech Drugs/Medicines (non-GMS)	47.4 (2.4)	69.9 (3.1)	88.6 (3.6)	122.3 (4.4)	139.4 (4.9)	171.5
High Tech Drugs/Medicines (GMS)	101.3 (5.1)	263.6 (5.7)	296.6 (5.9)	389.0 (6.0)	389.9 (6.7)	74.8
Other (i.e. under €135m in 2009)	214.4 (10.7)	263.6 (11.8)	296.6 (12.0)	389.0 (13.9)	389.9 (13.6)	67.8
<b>Total Non-Pay Expenditure (Schemes)</b>	<b>1,997.1 (100)</b>	<b>2,232.2 (100)</b>	<b>2,470.9 (100)</b>	<b>2,797.9 (100)</b>	<b>2,874.8 (100)</b>	<b>32.8</b>

Notes: Percentage of Total Non-Pay Expenditure (Schemes) in parentheses.

<sup>a</sup> % change refers to real expenditure growth over the period 2005-2009.

Source: HSE, personal communication [19 February 2010]

**TABLE 11.7**  
HSE Non-Pay Expenditure (Excluding Schemes), 2005-2009 (€m)

	2005 <sup>a</sup>	2006 <sup>a</sup>	2007	2008	2009	% change 07-09 <sup>b</sup>
Grants to Outside Agencies	-	-	994.7 (22.8)	1,082.8 (23.4)	1,173.0 (25.5)	18.6
Capitation Payments	-	-	629.7 (14.4)	639.7 (13.8)	598.0 (13.0)	-4.5
Drugs and Medicines	-	-	364.2 (8.3)	391.9 (8.5)	419.8 (9.1)	15.9
Medical/Surgical Supplies	-	-	383.1 (8.8)	384.8 (8.3)	393.0 (8.6)	3.2
Office Expenses Rent	-	-	203.5 (4.7)	211.6 (4.6)	200.8 (4.4)	-0.7
Professional Service	-	-	204.4 (4.7)	244.2 (5.3)	167.6 (3.6)	-17.6
Other (i.e. under €200m in 2009)	-	-	1,585.5 (14.9)	1,680.5 (14.2)	1,639.8 (14.2)	4.0
<b>Total Non-Pay Expenditure (Excluding Schemes)</b>	<b>-</b>	<b>-</b>	<b>4,365.1 (100)</b>	<b>4,635.5 (100)</b>	<b>4,592.0 (100)</b>	<b>5.8</b>

Notes: Percentage of Total Non-Pay Expenditure (Excluding Schemes) in parentheses.

<sup>a</sup> Non-pay expenditure (excluding schemes) is only available for statutory expenditure for 2005 and 2006.

<sup>b</sup> % change refers to real expenditure growth over the period 2007-2009.

Sources: HSE, personal communications [17 February 2010; 19 February 2010]

### 11.5 SUMMARY

In terms of health care, sustainability concerns the ability to meet the needs of the present without compromising future needs. Ireland is not alone in seeking to address concerns over the sustainability of the health-care system, nor are the drivers of health expenditure changes in Ireland any different to those facing all other developed countries (such as demographic and technological change). In terms of ensuring future sustainability, measures which seek to ensure better value for money are favoured over those that seek to re-distribute the cost of health care to other sectors/actors. Chapter 14 examines the extent to which resources are used efficiently in the acute public hospital sector.

While providing an overview of the literature on the drivers of variations in health expenditure over time and across countries, as well as mechanisms to ensure sustainability, this chapter also provided a brief overview of recent trends in overall health expenditure in Ireland and how we compare internationally. While Irish experience in terms of the economic and fiscal sustainability of health spending up to 2007 was no different to that of many other European and OECD countries, the current economic situation has meant that the economic sustainability of Irish health expenditure has deteriorated sharply in the last three years. In terms of fiscal sustainability however, public health expenditure as a share of total public expenditure has remained relatively stable over the last decade.

Focussing on public (non-capital) health expenditure trends since the establishment of the HSE in 2005 reveals that the share of total HSE expenditure devoted to PCCC has remained relatively stable over the period 2006-2009, with the share accounted for by the NHO declining at a relatively faster rate. In terms of non-pay expenditure, the major growth has occurred in the PCCC directorate and in the PCCC schemes (i.e., the 'demand-led' schemes such as the GMS and community drugs schemes) in particular. Notwithstanding recent developments on pharmaceutical pricing (see Chapter 12) and payments to service providers under the various schemes (see Chapter 6), the current economic situation means that this trend is likely to persist over the coming years.

Health is a labour intensive sector and expenditure on pay accounts for approximately 50 per cent of total public health expenditure (rising to nearly 70 per cent in the NHO directorate). However, the share of total public health expenditure devoted to pay has remained relatively stable over the period 2005. In addition, contrary to popular perceptions, the major growth in employment since 2005 has occurred in the 'other health and social care professionals' category rather than 'management and administration' (although there was strong growth in the 'management and administration' category prior to 2005 and there is some evidence to suggest that the composition of the 'management and administration' category

has changed since 2005). Chapter 13 discusses in greater detail a number of issues associated with public health employment and pay in Ireland, including a comparison with the UK.

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# Chapter 12

## Pharmacy Costs

### 12.1 INTRODUCTION

In 2009, total expenditure on pharmaceuticals in Ireland (public and private) amounted to approximately €2.5bn.<sup>1</sup> In a comparison with the eight comparator countries examined in this report, Ireland had the second lowest per capita expenditure on medical goods and the third lowest share of medical goods expenditure in total health expenditure in 2007 (OECD, 2009).<sup>2,3</sup> However, when comparing spending on medical goods over the period 2000-2007, Ireland experienced the fastest mean annual growth rate (16 per cent). The next highest rate of growth was in Canada with 8.4 per cent, while mean average annual growth rates in Australia, Sweden, the Netherlands and Germany were all below 7 per cent (OECD, 2009).<sup>4</sup>

A substantial proportion of total expenditure on pharmaceuticals in Ireland (approximately 85 per cent) relates to state expenditure on pharmaceuticals and payments to pharmacists under the General Medical Service (GMS) Scheme and community drugs schemes (CDS), administered by the Primary Care Reimbursement Service (PCRS).<sup>5</sup> Expenditure on the GMS and CDS increased from €579m in 2000 to €2.1bn in 2009, a real increase of 181 per cent. State expenditure on pharmaceuticals and payments to pharmacists now accounts for 14.0 per cent of gross public health expenditure in Ireland, up from 10.7 per cent in 2000. Expenditure growth on the GMS Scheme has been particularly pronounced; for example, payments to pharmacists under the GMS Scheme have increased by 194.6 per cent in real terms over the period 2000-2009. A combination of increases in eligibility, the prescription of newer (and more expensive) medications, increases in pharmaceutical marketing of products and the increasing adoption of evidence-

<sup>1</sup> In 2007, approximately 85 per cent of expenditure on pharmaceuticals in Ireland related to state expenditure on the General Medical Service (GMS) scheme and community drugs schemes (CDS) (Barry *et al.*, 2008). Applying the same split to 2009 PCRS expenditure on pharmaceuticals under the GMS and CDS results in a total spend of approximately €2.47bn in 2009.

<sup>2</sup> Comparable figures for the UK are not available.

<sup>3</sup> Expenditure on medical goods is the sum of expenditure on 'pharmaceutical and other medical non-durable products' and expenditure on 'therapeutic appliances and other medical durables'. As it is not possible to identify separately expenditure on pharmaceuticals and other medical non-durables from expenditure on therapeutic appliances and other medical durables in Ireland, international comparisons are based on the broader category of medical goods (OECD, 2009).

<sup>4</sup> However, these figures have not been adjusted for the differing age distributions of the respective countries. In 2007, the percentage of the population that was aged 65 years and older was 10.8 per cent in Ireland (OECD, 2009), the lowest percentage of all countries examined in this report.

<sup>5</sup> The three largest community drugs schemes (CDS) are the Drugs Payment (DP), Long Term Illness (LTI) and High Tech Drug (HTD) schemes (see Table 12.1). While Bennett *et al.* (2009) includes the GMS in the CDS, we follow the practice adopted by the DoHC of referring to the GMS and CDS separately (DoHC, personal communication; 18 February 2009).

based prescribing have contributed to these rapid rates of growth (Bennett *et al.*, 2009).<sup>6</sup> As a result of changing demographics, it is projected that both the number of items prescribed and ingredient costs are likely to double by 2020 (Bennett *et al.*, 2009). Concern over the sustainability of state expenditure on pharmaceuticals and payments to community pharmacists is a common theme in discussion on the Irish health service and the sector has been the subject of a number of recent significant policy developments, discussed in greater detail in this chapter.

In this chapter, we concentrate on a number of issues associated with public expenditure on pharmaceuticals, focussing in particular on issues associated with the price-setting mechanism and volume and product mix. Over the course of the research on this area, a number of significant policy developments took place and these are also discussed. Section 12.2 examines the mechanisms in place for setting the final reimbursable price for pharmaceuticals under the GMS and CDS in Ireland, while Section 12.3 discusses further issues in pricing policy, including the role of reference pricing, tenders for sole supply and parallel importing. Section 12.4 discusses issues associated with volume and product mix, with a particular focus on patient co-payments, generic prescribing and substitution and economic evaluation. Section 12.5 summarises and concludes.

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<sup>6</sup> Currently, approximately 31.1 per cent of the population are eligible for a medical card, with a further 2.2 per cent eligible for a GP visit card (HSE, 2010a). In 2005, 27.3 per cent of the population were eligible for a medical card (Nolan, 2008), with the GP Visit card introduced in late 2005. Extensions in eligibility to all those over 70 in October 2001 regardless of means (this has since been abolished, although the numbers affected have been small), as well as increases in unemployment have contributed to increases in the numbers eligible for a medical card since 2005. See also Chapter 1.



**TABLE 12.1**  
Payments to Pharmacists under the GMS and CDS, 2000-2009 (€m)

Scheme	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 <sup>a</sup>	% change 00-09 <sup>b</sup>
General Medical Services	338.8	434.0	550.9	650.7	763.3	831.4	940.2	1,048.4	1,127.7	1,286.1	194.6
Drug Payment	140.6	177.6	192.4	204.4	226.8	246.7	285.8	310.1	311.5	335.1	85.0
Long Term Illness	41.7	52.1	61.6	73.3	85.6	100.5	115.5	124.5	137.2	148.3	175.8
High Tech Drugs	51.9	65.1	84.6	109.1	148.2	177.5	217.8	250.2	286.4	312.4	367.3
Dental Treatment Services	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.6	0.7	0.7	34.6
European Economic Area	1.3	1.4	1.5	1.6	1.8	1.9	2.1	2.3	2.3	2.3	34.4
Methadone Treatment	3.9	4.5	5.3	6.0	6.5	6.8	8.5	8.7	10.0	10.1	100.1
Health (Amendment) Act 1996	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	85.7
Other (i.e. training grants)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.2	0.3	-
<b>Total</b>	<b>579.1</b>	<b>735.6</b>	<b>897.4</b>	<b>1,046.3</b>	<b>1,233.6</b>	<b>1,366.3</b>	<b>1,571.7</b>	<b>1,746.4</b>	<b>1,877.1</b>	<b>2,096.6</b>	<b>181.0</b>
<b>Overall PCRS Total<sup>f</sup></b>	<b>806.4</b>	<b>1,010.9</b>	<b>1,257.2</b>	<b>1,419.3</b>	<b>1,637.3</b>	<b>1,864.1</b>	<b>2,060.5</b>	<b>2,273.1</b>	<b>2,463.2</b>	<b>2,696.4</b>	<b>159.5</b>

Notes: The PCRS administers payments to community pharmacists providing services under the GMS and CDS.

<sup>a</sup> 2009 expenditure is estimated as 2009 data have not yet been published.

<sup>b</sup> % change refers to real expenditure growth over the period 2000-2009.

<sup>c</sup> i.e. including payments to doctors, dentists, opticians, etc. under the various schemes outlined in Table 1.4 of Chapter 1

Source: PCRS, personal communication [31 August 2009]

## 12.2 GMS AND COMMUNITY DRUGS SCHEMES

The PCRS is part of the HSE Finance Directorate and has an operational role in relation to making payments to Primary Care Contractors for services provided by them under the various state schemes. These contractors include General Practitioners (GPs), pharmacists, dentists and optometrists/ophthalmologists. Table 1.4 in Chapter 1 lists the schemes/payment arrangements currently in place and the contractors paid under each.

Over the period 2000-2009 inclusive, state expenditure on pharmaceuticals and payments to pharmacists increased by 181 per cent in real terms and now accounts for two-thirds of total expenditure by the PCRS. In terms of total PCRS expenditure, the four biggest schemes are the GMS, Drugs Payment (DP), Long Term Illness (LTI) and High Tech Drug (HTD) schemes and all have experienced substantial increases in expenditure on pharmaceuticals and payments to pharmacists over the period 2000-2009 (see Table 12.1). At present, over two-thirds of the population avail of the GMS, DP and LTI schemes (Bennett *et al.*, 2009).<sup>7</sup>

While over 85 per cent of pharmaceutical expenditure relates to expenditure in the community, a significant proportion of pharmaceutical prescribing is initiated in hospitals. Feely *et al.* (1999) estimate that hospital doctors initiated 38 per cent of GMS prescriptions. The agreements between the State and manufacturers (see Section 12.3.1) regulate the ex-factory prices of pharmaceuticals supplied in public hospitals, but discounting of products at hospital level has significant implications for the prescribing of such products in the community. While we do not explicitly discuss hospital prescribing in this chapter, the fact that a significant portion of prescriptions originate in a hospital setting has important implications for the sustainability of state expenditure on the GMS and CDS.

Concern over the sustainability of public expenditure on pharmaceuticals and payments to community pharmacists is not new; a number of reports commissioned by the Government in recent years have examined various aspects of public expenditure on these schemes. Table A6.5 in the Appendix to Part 6 outlines the main recommendations of these reports and the recent policy changes of relevance. The main areas of concern have centred on the pricing and reimbursement mechanism (and in particular over the last year, the wholesale and retail mark-ups and the dispensing fees paid to pharmacists), the economic evaluation of drugs and medicines reimbursed under the GMS and CDS and the low rate of generic prescribing in Ireland.

<sup>7</sup> All residents of Ireland who are not eligible for the GMS Scheme are eligible for the DP Scheme; however, not all have applied for DP Scheme cards. Patients eligible for the LTI Scheme are also eligible for either the GMS or DP Scheme (dependent on means).

### 12.3 PRICE-SETTING MECHANISM

In Ireland, as in many other countries with state assistance towards the cost of pharmaceuticals, the pricing of pharmaceuticals is strongly linked to reimbursement, i.e. pricing and reimbursement form part of the same procedure. In Ireland, prices of medicines supplied under the GMS and CDS are regulated at the level of the manufacturer by way of agreement between the State and the manufacturers.<sup>8</sup> The price to the manufacturer (ex-factory price) is the basis for all prices in the market. In addition to these agreements with manufacturers there are also regulations in relation to wholesale mark-ups and retail mark-ups and dispensing fees paid to pharmacists.<sup>9</sup> The following sections examine each link of the pharmaceutical supply chain in Ireland (manufacturers, wholesalers and pharmacies) to outline how pharmaceuticals are priced and ultimately what comprises the reimbursement price paid to pharmacists by the PCRS.

#### 12.3.1 Manufacturer Level

##### 12.3.1.1 2006 IPHA and APMI Agreements

In mid-2006, new agreements were reached between the HSE and the Irish Pharmaceutical Healthcare Association (IPHA) and the Association of Pharmaceutical Manufacturers of Ireland (APMI) on the pricing and supply of medicines for the Irish public health service.<sup>10</sup> Both agreements came into effect in September 2006 for a period of four years. Both the IPHA and APMI agreements are due to expire in September 2010. However, in January 2010 a number of amendments to the IPHA agreement were announced (see below), including a provision that the current agreement will be extended to March 2012. The APMI agreement is still due to expire in September 2010.

The IPHA and APMI agreements apply to all medicines granted a marketing authorisation by the Irish Medicines Board (IMB) or European Commission, that can be prescribed and reimbursed under the GMS and CDS and all medicines supplied to the HSE, state funded hospitals and state agencies whose functions normally include the provision of medicines. In Ireland, drugs can be classified under one of four categories:

- Unbranded generic – using the international non-proprietary name (INN)
- Branded generic – a generic medicine licensed under a brand name
- Proprietary drug with a generic equivalent
- Proprietary drug with no generic equivalent.

<sup>8</sup> According to the Irish Pharmaceutical Healthcare Association (IPHA), in 2009 more than 120 pharmaceutical companies had a presence in Ireland and the industry directly employed over 24,500 people (IPHA, 2009).

<sup>9</sup> See Figure 12.1 in Section 12.3.3.

<sup>10</sup> The IPHA represents the proprietary suppliers and the APMI represents the generic suppliers.

The price-setting mechanism follows the same procedure regardless of the type of drug, except where the classification of a drug changes between agreements. A single maximum price across hospital and community supply is also a feature of the agreements. It should be noted however, that hospitals are free to negotiate prices directly with manufacturers.

*External Price Referencing:* The ex-factory price (manufacturer price) is set with reference to the currency-adjusted average price to the wholesaler in nine nominated EU states (in which the medicine is available): Austria, Belgium, Denmark, Finland, France, Germany, Netherlands, Spain and UK. This is known as international or external price referencing.<sup>11</sup> If a new medicine is not available in any of the nominated EU states, the Irish price to the wholesaler will be agreed between representatives of the manufacturer/importer concerned and the HSE within 90 days of the date of reimbursement. The prices of new drugs will be monitored over the period of the agreements and are realigned to the currency-adjusted average price in the nominated states two years and four years following commencement of the agreements.

The use of external price referencing avoids the need to take an independent view on the appropriate prices of pharmaceuticals and is a pragmatic solution for small countries where the costs of carrying out independent assessments are large (Office of Fair Trading, 2007). The choice of comparator countries is important. A major drawback with this method is that it provides a strong incentive for manufacturers to launch first in countries that do not regulate entry prices in order to have the list prices in these countries referenced by others. In the Irish case, three of our reference countries, Germany, Denmark and the UK, do not regulate the ex-factory price of pharmaceuticals. A further drawback is that the listed price for other countries is not necessarily the price paid by the purchaser, due to the existence of confidential discounts and rebates. The convergence in list prices of pharmaceuticals that has been observed in Europe is consistent with what would be expected in a market characterised by these practices (OECD, 2008). It has been suggested that the median, rather than the average, be chosen as the external reference price, as it has the advantage of not being influenced by outlier prices in comparator countries (OECD, 2008).

*Existing medicines:* Medicines normally reimbursable under the GMS and CDS at the date of commencement of the agreements will, subject to deletions, remain reimbursable for the duration of the agreements. The price to the wholesaler of each item of medicine covered by the agreement will not be increased for the term

<sup>11</sup> Internal price referencing is where drugs are priced with reference to therapeutic comparators (OECD, 2008).

of the contract except under provisions for price monitoring and review, price modulation or exceptional circumstances.<sup>12</sup>

*New medicines:* New medicines granted a marketing authorisation by the IMB or European Commission will become reimbursable in the GMS and CDS within 60 days of the date of reimbursement application. Products which are subject to pharmacoeconomics assessment will become reimbursable in the schemes within 40 days of a positive reimbursement decision. The HSE reserves the right to assess new and existing pharmaceuticals, diagnostics and devices that may be high cost or have a significant budget impact on the health-care system. Where a new medicine is subject to pharmacoeconomic assessment the reimbursement decision will be notified within 90 days (see also Section 12.5.4).

With regard to price monitoring, under the terms of the agreements the price to the wholesaler of any new medicine introduced to Ireland since the implementation of the agreement (i.e. since September 2006) shall be realigned to the currency-adjusted average price to the wholesaler in the nominated EU member states in which the medicine is then available, two years and four years following the commencement of the new agreements. Price changes (if any) resulting from these realignments are implemented within 60 days of the realignment date. No realignment will be required within 12 months of the date of reimbursement approval. However, for products on the list prior to September 2006, there is no mechanism for price review.

*Patent expired medicines:* The IPHA agreement includes a provision for price reductions on patent expired medicines. The price reductions apply to specific dosage forms of patent expired medicines where the identical pharmaceutical form of that medicine, approved by the IMB or European Commission, is available for prescription under the schemes and all medicines supplied by the HSE. For patent expired medicines, the price to the wholesaler is reduced by 20 per cent six months following the commencement of the agreement and by a further 15 per cent of the original price after 22 months - an overall reduction of 35 per cent. The HSE notifies the manufacturer/importer of the availability of an identical pharmaceutical form from another manufacturer and the new discounted price applicable.

When introduced as part of the 2006 IPHA agreement, the price monitoring and review for new medicines and price cuts for patent expired medicines were expected to achieve €300m of savings over the duration of the agreement (Barry *et al.*, 2008). However, the achievement of such savings depends crucially on the monitoring of drug prices in the reference countries at the planned two and four year intervals

<sup>12</sup> Price modulation means that the manufacturers are given some flexibility in deciding which products in their portfolio to target in changing prices as long as the overall change is cost neutral for the state.

along with the identification of off-patent medicines to facilitate the 35 per cent two-phased price reduction (Barry *et al.*, 2008).

*February 2010 Amendments to 2006 IPHA Agreement:* From 01 February 2010, a number of amendments to the current IPHA agreement were agreed between the IPHA and the HSE. The most significant relates to a further 40 per cent price reduction for off-patent drugs, which became effective immediately on 01 February 2010. This means that the price of off-patent drugs is now 39 per cent of the original price which applied in September 2006. Secondly, the GMS rebate of 3.53 per cent has been increased to 4 per cent (effective from 01 January 2010) and has been extended to the CDS.<sup>13,14</sup> Finally, it was agreed that the 2006 agreement between the HSE and IPHA will be extended until 01 March 2012 and all the provisions therein will remain extant. However, IPHA accepts that the agreement may stand amended in the context of the introduction of legislation to provide for a system of reference pricing and generic substitution, although reference pricing and generic substitution will not be introduced prior to 2011 and will be restricted to ATC Level 5 until March 2012 (see Section 12.4.1).

### 12.3.2 Wholesaler Level

As well as regulating the price of pharmaceuticals at manufacturer level, the wholesale mark-up for pharmaceuticals is also regulated. Following the completion of the agreements with the manufacturer bodies in 2006, negotiations commenced with the Pharmaceutical Distributors Federation (PDF), a body which represents the three main wholesalers operating in the Irish market.<sup>15</sup> In order to establish new margins for wholesalers a public consultation process was undertaken along with stakeholder consultation and an independent economic analysis (Indecon, 2007). It found that the HSE was paying twice the European average wholesale mark-up.<sup>16</sup> Under the Health Professionals (Reductions of Payments to Community Pharmacy

<sup>13</sup> The 2006-2010 IPHA agreement contained a provision for a 'GMS rebate'; each month manufacturers/importers rebate to the HSE a small percentage of the value (of the price paid by the wholesaler) of all medicines dispensed under the GMS scheme. The rebate is not payable on medicines which are the subject to the price reduction. The actual value of discounts provided to pharmacists is believed to be much higher (Dáil Éireann, 2007).

<sup>14</sup> Combined with savings in the wholesale and retail mark-ups paid to pharmacists, these amendments are expected to result in savings of approximately €94m in a full year (Dáil Éireann, 2010).

<sup>15</sup> The wholesale market in Ireland is dominated by three wholesalers (United Drug, Uniphar and Cahill May Roberts), accounting between them for 90 per cent or more of sales. There is a significant degree of vertical integration between wholesale and retail pharmacy. Uniphar is wholly owned by about 450 retail pharmacists and operates the Independent Pharmacy Ownership Scheme (IPOS), which supports the purchase or setting up of pharmacies. Cahill May Roberts owns the Unicare chain of retail pharmacies with 60 outlets. United Drug states that 800 pharmacists are among its shareholders. Some wholesalers grant shares to retail pharmacists as a loyalty bonus for placing their business with the wholesaler (Dorgan, 2008).

<sup>16</sup> A further issue of concern was the practice of discounting by wholesalers, which meant that much of the wholesaler margin actually accrued to pharmacies (although the exact size of such discounts was not reported due to commercial sensitivity) (Indecon, 2007).

Contractors) Regulations 2009, with effect from 01 July 2009, the Minister reduced the existing wholesale mark-up from 17.66 per cent to 10 per cent.<sup>17</sup>

### 12.3.3 Pharmacy Level

Figure 12.1 shows the total reimbursement price for pharmaceuticals paid by the PCRS to pharmacists under the GMS and CDS. Both the previous and the current (from 01 July 2009) reimbursement prices are shown. There is no retail mark-up on drugs supplied under the GMS Scheme. Under the GMS Scheme, the pharmacist receives the ex-factory price plus a wholesale mark-up and a dispensing fee per item.<sup>18</sup> For drugs supplied under the DP/LTI/EEA/HAA schemes the pharmacist also receives a retail mark-up on the ex-wholesale price (reduced from 50 per cent to 20 per cent from 01 July 2009).<sup>19,20</sup> For the HTD Scheme the pharmacist is paid a patient care fee each month of €60.52 per patient. Similarly for the Methadone Treatment (MT) Scheme the pharmacist is paid a maximum of €60.49 per month. The Health Professionals (Reductions of payments to Community Pharmacy Contractors) Regulations 2009 does not make reference to changes in the fees payable to pharmacists under the HTD and MT schemes.<sup>21</sup>

<sup>17</sup> Early in the negotiations between the HSE and the PDF, it was discovered that the negotiations were contrary to the Competition Act, 2002. To try to remedy this, the HSE announced new reimbursement arrangements for pharmacists on 17 September 2007. Under the CDS the wholesale mark-up would be reduced from 17.66 per cent to 8 per cent from 01 January 2008 and to 7 per cent of the ex-factory price from 01 January 2009. Although the first stage was to come into effect from 01 January 2008 the HSE delayed its implementation until 01 March 2008. A case was taken by Hickey Pharmacies against the HSE claiming the HSE were in breach of contract by unilaterally reducing the wholesale mark-up. The High Court ruled in favour of Hickey Pharmacies and the wholesale mark-up of 17.66 per cent was reinstated by the HSE in October 2008. The ruling by the High Court on 11 September 2008 centred on clause 12(1) of a 1971 Memorandum of Agreement between the Minister for Health and the Irish Pharmacist Union (IPU). The judgement said that under that clause the pharmacists were contractually entitled to receive payments at a rate, or rates, unilaterally determined by the Minister (not the HSE) by approval or direction, following consultation. Section 9 of the *Financial Emergency Measures in the Public Interest Bill 2009* gave the Minister the authority to unilaterally introduce the changes to the wholesale mark-up.

<sup>18</sup> The ex-factory price is the price of a drug determined in accordance with the relevant agreements between the HSE and representative bodies of manufacturers and importers (see Section 12.3.1).

<sup>19</sup> The ex-wholesale price is sometimes referred to as the 'ingredient cost', i.e. ingredient cost = ex-factory price + wholesale mark-up.

<sup>20</sup> It has been reported that pharmacists are still applying the 50 per cent retail mark-up to pharmaceuticals dispensed to patients below the DP threshold of €120 per month. This means that, for the same drug, three retail prices may apply. For example, a monthly prescription for Nexium (a drug to treat excess stomach acid) would cost €50.34 for those on the GMS scheme, €59.41 for those on the DP scheme (in excess of the €120 per month threshold) and €86.33 for those not on the DP scheme (below the €120 per month threshold) (Mitchell, 2010).

<sup>21</sup> See Government of Ireland (2009).

FIGURE 12.1

PCRS Pharmaceutical Pricing and Reimbursement Mechanism<sup>22</sup>

Notes: <sup>a</sup> Standard fee = €3.60 = €3.07 (fee) + €0.53 (allowance). Additional allowance may apply.

<sup>b</sup> As per the Health Professionals (Reductions of Payments to Community Pharmacy Contractors) Regulations 2009.

Sources: PCRS, 2008; Government of Ireland, 2009

### 12.3.4 International Comparisons

The most up-to-date and comprehensive study of pharmaceutical pricing and reimbursement across Europe was carried out by Vogler *et al.*, 2008 on behalf of the European Commission. The study examines the pricing and reimbursement arrangements for pharmaceuticals across 27 countries, including Ireland. Tables 12.2 to 12.4 present details on various aspects of pharmaceutical pricing policy across the eight countries examined in this report, as well as Ireland.<sup>23</sup> Table 12.3 shows that in terms of external price referencing, despite the use of a basket of nine EU countries in Ireland (and the inclusion of low cost Spain for the first time<sup>24</sup>), the Irish comparator countries are judged to be mainly high price.<sup>25</sup>

<sup>22</sup> Correct as on 19 April 2010.

<sup>23</sup> The international comparison tables presented are based on those presented in Vogler *et al.* (2008). Of the eight, countries selected for analysis in this report four are represented in Vogler *et al.* (2008) (Germany, Netherlands, Sweden and the UK). Comparable data for the remaining four countries (Australia, Canada, New Zealand and the United States) were gathered by the authors from a variety of sources (see notes to tables).

<sup>24</sup> See accompanying box for description of the pricing and reimbursement of pharmaceuticals in Spain. While Spain is not among the countries chosen for detailed study in this report (see Chapter 1), it is frequently referenced in discussions about pharmaceutical prices.

<sup>25</sup> In addition, a 2005 bi-lateral comparison of ex-factory prices between the UK and various EU countries found that Ireland, Germany and Finland were all above the UK level. Belgium, France and the Netherlands were just slightly below the UK level, while only Spain was significantly lower (Office of Fair Trading, 2007).



**TABLE 12.2**

Price Control, Pricing Policy and Controlled Price Type

Country	Scope of Price Control	Pricing Policy	Controlled Price Type
Australia	For medicines used in the community, the Schedule of Pharmaceutical Benefits lists drugs subsidised by Government and their prices.	National Health Act requires that medicines be acceptably cost-effective to allow inclusion on Schedule of Pharmaceutical Benefits. Assessment of cost-effectiveness conducted by independent expert Committee – Pharmaceutical Benefits Advisory Committee.	Pharmacy purchasing price
Canada	Ex-factory prices of patented pharmaceuticals have been regulated at the federal level by the Patented Medicine Prices Review Board. Prices of off-patent original products and generics are not federally regulated but may be regulated at the provincial/territorial level.	Statutory pricing <sup>a</sup>	Ex-factory price
Germany	No price control (free pricing for all pharmaceuticals)	Obligatory price notification to Pharmacists Association	Ex-factory price <sup>b</sup>
Ireland	Reimbursable pharmaceutical(s) and those supplied to the HSE (pharmaceuticals under price agreements)	Pricing based on agreements between the HSE and industry; in case of non availability of comparative data, price negotiations	Ex-factory price
Netherlands	Prescription-only medicines	Statutory pricing <sup>a</sup>	Pharmacy purchasing price
New Zealand	No price control (free pricing for all pharmaceuticals)	A supplier may market its product at any price in the New Zealand market following approval by Medsafe. In order to get a subsidy a supplier must negotiate with PHARMAC on a 'willing buyer, willing seller' basis. If not subsidised, the patient must meet the full cost of the medicine.	Ex-factory price <sup>b</sup>
Sweden	Reimbursable pharmaceutical(s)	Statutory pricing (pricing and reimbursement processes are combined)	Pharmacy purchasing price
United Kingdom	NHS products, including branded prescription only medicines and over the counter	Indirect price control through profit control based on the Pharmaceutical Regulation Scheme (PPRS) <sup>c</sup>	NHS list price <sup>d</sup>
United States	No price control (free pricing for all pharmaceuticals)	Drug prices are established through arrangements between pharmaceutical manufacturers and a variety of private and public sector purchasers, including wholesalers, retail pharmacies, health maintenance organisations (HMOs), insurers, hospitals and government entities.	-

*Notes:*

<sup>a</sup> Statutory pricing is a pricing system where pharmaceutical prices are set on a regulatory basis (e.g. laws, enactments, decrees).

<sup>b</sup> No price control is exercised in Germany and New Zealand. However, the prices of reimbursable pharmaceuticals (in particular the reimbursement prices) are indirectly influenced by the reimbursement system. There is free pricing at the ex-factory price level, but at the distribution level mark-ups (wholesale and pharmacy) are regulated.

<sup>c</sup> The Pharmaceutical Price Regulation Scheme (PPRS) is the UK-wide price regulation scheme for branded prescription medicines supplied to the NHS. The scheme comprises two main components:

- Profit controls: the PPRS sets a maximum level for the profits that a company may earn on the supply of branded goods to the NHS. The maximum and minimum level of profits are based on a target rate of return, which is the higher of 2.1 per cent return on capital employed and -6 per cent return on sales to the NHS;
- Price controls: companies are given freedom to set the initial price of new active substances but are subject to restrictions on subsequent price increases.

The scheme has been in existence for over fifty years and each agreement runs for a period of five years. Prices for generic drugs are set by the Department of Health and are based on a calculation that incorporates the volume-weighted average prices charged by generics manufacturers in the UK (Office of Fair Trading, 2007).

<sup>d</sup> Corresponds to the pharmacy purchasing price, i.e. the price at which prescription only medicines are reimbursed.

*Sources:* Australia: Australian Department of Health and Aging, personal communication [05 November 2009] and [www.health.gov.au/internet/main/publishing.nsf/Content/health-pbs-general-pbs-whopays.htm](http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pbs-general-pbs-whopays.htm) [last accessed 02 February 2010]

Canada: Vogler *et al.* (2008) and Paris *et al.* (2007)

Germany, Ireland, Netherlands, Sweden and UK: adapted from Vogler *et al.* (2008)

New Zealand: PHARMAC, personal communication [08 December 2009]

United States: <http://ec.europa.eu/enterprise/phbiocom/p6.htm>, [last accessed 24 November 2009]

**TABLE 12.3**  
External Price Referencing

Country	Scope	Reference Countries	Size of Basket	Country Price Level
Australia	-	-	-	-
Canada	Patented medicines	France, Germany, Italy, Sweden, Switzerland, United Kingdom, United States	5-10 reference countries	Mostly high price countries
Germany	No	-	-	-
Ireland	Prescription-only medicines	Belgium, Denmark, France, Germany, Netherlands, Spain, United Kingdom, Finland, Austria	5-10 reference countries	Mostly high price countries
Netherlands	Prescription-only medicines	Belgium, Germany, France, United Kingdom	<5 reference countries	Mix of low/high price countries
New Zealand	Informal – New Zealand does not have a pricing benchmark based on other countries. However, they do look at pricing in other countries to inform their negotiations with suppliers around subsidies.	-	-	-
Sweden	No	-	-	-
United Kingdom	No	-	-	-
United States	-	-	-	-

Sources: Australia: Australian Department of Health and Aging, personal communication (05 November 2009)  
 Canada: Paris *et al.* (2007)  
 Germany, Ireland, Netherlands, Sweden and UK: Vogler *et al.* (2008)  
 New Zealand: PHARMAC, personal communication (08 December 2009)  
 Sweden: Moise *et al.* (2007)  
 United States: Kanavos *et al.* (2005)

In terms of wholesale and retail mark-ups, Ireland employs a linear mark-up system; in contrast, countries such as Australia, Germany (for reimbursed over-the-counter drugs only) and Sweden employ regressive/degressive mark-ups (whereby the mark-up/fee falls with the price of the drug). In addition, many of these regressive/degressive mark-ups are capped. For example in Australia, there is a regressive mark-up scheme, ranging from 15 per cent to 4 per cent, which is capped at AUS\$70 (as at 01 August 2008). Although difficult to compare, it appears that the retail mark-up (and to a lesser extent the dispensing fee structure) is where Ireland still remains out of line with experience in the other countries examined. A further component of the price of pharmaceuticals is VAT; in Ireland the majority of medications are oral medications which have a zero per cent VAT rate, the remainder are subject to VAT at the standard rate of 21 per cent. This is similar to the systems in Australia, Sweden and the UK which either exempt all pharmaceuticals from VAT or apply a zero per cent rate (OECD, 2008). See Table 12.4 for comparison of wholesale and retail mark-ups across the nine comparator countries, as well as dispensing fees and value added tax (VAT) levels.

**TABLE 12.4**

Distribution Mark-Ups and VAT on Pharmaceuticals in OECD Countries

Country	Wholesale Mark-Up	Pharmacy Mark-Up	Fixed Pharmacy Fee, Dispensing Fee or Prescription Fee	VAT
Australia	7.52 per cent of the Government agreed price to pharmacist up to \$930.06, over this flat fee of AUD 69.94 (equates to a 7 per cent wholesale margin).	Regressive mark-up scheme, ranging from 15 per cent to 4 per cent, capped at AUD 70 (01 August 2008).	AUD 5.99 for ready prepared items or AUD 8.03 for extemporaneously prepared items, plus a range of miscellaneous fees and allowances where applicable.	No VAT (or GST) for prescribed medicines; for most OTC, 10 per cent, unless they fall under the GST exemption (standard rate 10 per cent).
Canada	Capped, but depends on region and plan. Overall average 5 per cent.	Depending on region and drugs plans.	Depending on region and drug plans	0 per cent on reimbursed medicines (standard rate 7 per cent)
Germany	Maximum mark-up, defined through regressive schemes combining percentages and fixed amounts: - for POM: mark-up ranging from 15 per cent to 6 per cent of ex-factory price, capped at EUR 72; - for reimbursable OTC: ranging from 21 per cent to 3 per cent of ex-factory price, capped at EUR 61.63.	Fixed mark-up for POM: 3 per cent of wholesale price. Regressive mark-up combining percentages and fixed amounts for reimbursable OTC, ranging from 68 per cent to 8.26 per cent of wholesale price, with a maximum of EUR 118.24.	For POM: EUR 8.10	16 per cent, increased to 19 per cent per 1 January 2007 (standard rate 16 per cent).
Ireland	Fixed mark-up: 10 per cent of ex-factory price.	Mark-up on ingredient cost, depending on patient's coverage status: - 0 per cent for GMS patients - 20 per cent for patients covered by Drugs Payment Scheme (DP) and Long Term Illness (LTI) Scheme.	Sliding scale dispensing fee: EUR 5.00 per item – first 1,667 per month EUR 4.50 per item – next 833 per month EUR 3.50 per item – remainder per month	0 per cent for oral medicines and 21 per cent for non-oral medicines (standard rate 21 per cent).
Netherlands	Not fixed.	There is a clawback of 6.82 per cent on pharmacy prices for medicines covered by the Medicines Pricing Act (with a ceiling of EUR 6.80 per prescription).	EUR 6.10.	6 per cent for all medicine (standard rate 19 per cent).
New Zealand	10 per cent.	All pharmaceuticals: 4 per cent if price less than NZD 150. 5 per cent if price more than NZD 150.	NZD 5.16 for most pharmaceuticals (differs for some groups of pharmaceuticals)	12.5 per cent (standard rate 12.5 per cent).
Sweden	Unregulated. Mark-ups negotiated between Apotek (distribution monopoly) and manufacturers. Average margin estimated 2.7 per cent.	For POM: degressive linear mark-up capped combining proportional and fixed mark-up, capped at SEK 167 (EUR 18). For OTC, mark-ups set by Apoteket.	-	0 per cent for POM, 25 per cent for OTC (standard rate 25 per cent).
United Kingdom	The NHS list price includes wholesalers' distribution margin. Discounts may be negotiated between manufacturers and wholesalers and between wholesalers and pharmacists.	Pharmacies' margins are determined by the difference between NHS reimbursement price and the actual pharmacy purchase price.	Pharmacists receive fees and allowances for their services.	0 per cent POM dispensed in the community; 17.5 per cent OTC and POM dispensed in hospital
United States	Unregulated. Average of 2-4 per cent.	Unregulated, average of 22-25 per cent.	-	-

*Note:* Includes only fixed pharmacy fees, dispensing fees or prescription fees related to normal dispensing activities; supplemental payments such as fees related to after-hours services are not included.

*Sources:* OECD(2008): Annex 1.A1; 46-48

Australia: [www.health.gov.au/internet/main/publishing.nsf/Content/health-pbs-general-pbs-whopays.htm](http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pbs-general-pbs-whopays.htm) [last accessed 02 February 2010]

Ireland: Health Professionals (Reductions of Payments to Community Pharmacy Contractors) Regulations, 2009 (Government of Ireland, 2009)

UK: PPRI(2007a)

**Box 1: Pharmaceutical Pricing and Reimbursement in Spain (2008)**

**Reimbursement:** In Spain the National Health System covers up to 90 per cent of the cost of all prescription only medications (POMs) and 100 per cent of the cost of drugs prescribed in hospitals.

**Manufacturer price:** Manufacturers freely set the price of non-reimbursable pharmaceuticals and reimbursable pharmaceuticals destined for parallel export. However, final prices still need to be approved. The maximum ex-factory (manufacturer) price of all reimbursable POM is set by the Interministerial Commission on Pharmaceutical Prices. In the pricing process the Commission will take into account the therapeutic utility reports provided by the Spanish Agency for Medicines and Health Products. The aim is to set a price that would generate a return of approximately 12-18 per cent on the company's investment. Manufacturers can appeal in case of disagreement with the commission's price, but they can also choose to launch the product unreimbursed.

**Pricing of generics:** Generics manufacturers are legally obliged to price their products at or below the reference price level.

**Wholesale margin:** There is a wholesale margin of 7.6 per cent on the manufacturer price of all pharmaceuticals (reimbursable, non-reimbursable, branded generics and generics and OTC) costing less than €91.63 and a fixed rate of €7.54 for drugs exceeding €91.63.

**Pharmacy margin:** There is a pharmacy margin of 27.9 per cent for pharmaceuticals costing less than €91.63 and a fixed fee of €38.37 for drugs exceeding €91.63.

**Pharmacy fees:** There is no fixed pharmacy fee, dispensing fee or prescription fee.

**VAT:** The standard VAT rate in Spain is 16 per cent and the VAT rate for pharmaceuticals is 4 per cent.

**Parallel exporting:** Due to its low pharmaceutical prices, Spain is an important parallel export country. Pharmaceuticals may be priced differently depending on whether they are distributed and dispensed within Spain, or destined for other European markets (dual-pricing policy).

**Reference pricing:** Reference pricing was introduced in 2000 and modified in 2004 and 2006. Reference price groups include all pharmaceuticals with the same active substance and route administration (ATC 5). Each group must contain at least one generic version. The reference price for each group is calculated as the arithmetic mean of the three lowest costs per treatment and day of the pharmaceutical presentations included in the group, calculated in accordance with the defined daily dose. The three products selected must be produced by three different companies. Products with a manufacturer price below €2 are excluded. As mandatory generic substitution exists for reference priced pharmaceuticals, patients do not have the option to pay the difference between the reference price and the retail price.

**Generic prescribing:** Doctors are not obliged to prescribe generically but under the Pharmaceutical Law it is actively encouraged.

**Generic substitution:** Pharmacists may substitute generics unless it is specifically prohibited by the prescriber. When the prescription is made by active ingredient subject to reference pricing, the pharmacist must dispense the lowest price pharmaceutical and should the price be the same, the generic one, if available.

**Co-payments:** There is a percentage co-payment but there is no prescription fee or deductible. There are exemptions for retired people and those with chronic diseases.

**Notes:** The decision on inclusion into reimbursement lies with the Ministry of Health. There are four reimbursement categories:

- (i) 100 per cent reimbursement for hospital pharmaceuticals
- (ii) 90 per cent reimbursement for pharmaceuticals for the management of chronic illnesses such as epilepsy, asthma and diabetes (price up to €2.64), 60 per cent reimbursement for the majority of POM (70 per cent for certain civil servants)
- (iii) 0 per cent reimbursement for pharmaceuticals on the negative lists.

**Sources:** ÖBIG, 2006; Vogler *et al.*, 2009

## 12.4 FURTHER ISSUES IN PRICING

### 12.4.1 Reference Pricing

In January 2010, the Minister for Health and Children signalled her intention to introduce a reference pricing system for off-patent drugs, combined with a system of generic substitution (DoHC, 2009). A working group was established and reported in June 2010 (DoHC, 2010a). The group recommended the most appropriate form of reference pricing for the Irish market and identified the legal and administrative changes that are necessary to give it effect. The group also recommended the introduction of a wider system of interchangeable medicines,<sup>26</sup> whereby pharmacists may dispense generically and must inform the patient of the availability of the less expensive interchangeable medicine where an interchangeable medicine is prescribed. Generic prescribing and substitution are discussed in greater detail in Section 12.5.3.

Reference pricing sets the public subsidy for drugs within a particular subgroup at a level determined by low cost alternatives within that subgroup (with patients required to pay the excess cost if they wish to use drugs priced above the reference-based subsidy). Pharmaceuticals are grouped using the Anatomical, Therapeutic, Chemical (ATC) classification system level 3, 4 or 5.<sup>27</sup> When the drugs have been classified into groups, the authority responsible for pharmaceutical reimbursement determines a maximum amount (reference price) reimbursable. The most widely used approach relates to bioequivalent products (ATC level 5, also known as phase one price referencing), which are placed in reference groups consisting of off-patent products and their generic equivalents (see Table 12.5). This is the approach recommended in the Irish case (DoHC, 2010a). The reimbursed price may be set as the lowest drug in the defined cluster or may be based on the average price within the cluster (Kanavos *et al.*, 2008). Reference pricing is often combined with mandatory generic substitution on the part of pharmacists (see Section 12.5.3). The Irish proposal is to choose the lowest price, but does not go as far as recommending mandatory generic substitution on the part of pharmacists (DoHC, 2010a).

International experience with reference pricing suggests a number of possible effects. Reference pricing often results in harmonisation of prices within clusters. Where they have been applied, pharmaceutical firms have generally dropped their list prices for products because of concern about the prospective loss of market share (OECD, 2008). The schemes with the greatest potential impact (on prices) are those that undertake clustering at the therapeutic level (rather than at the bioequivalent level), set a reference price at a level allowing generic competitors to

<sup>26</sup> The Group use the term 'medicine interchangeability' to incorporate issues of reference pricing as well as generic substitution (DoHC, 2010a).

<sup>27</sup> ATC level 3 defines pharmaceuticals in the same pharmacological subgroup, ATC level 4 defines a therapeutic group within the anatomic therapeutic chemical classification system, while ATC level 5 defines a single active ingredient or a fixed combination of active ingredients within the anatomic therapeutic chemical classification system (Vogler *et al.*, 2008).

enter the market and allow clustering of patented products. With careful construction of clusters, it can discourage the practice of 'evergreening' whereby an originator obtains follow-on patents covering non-essential features of an active substance that is already on the market and facing the end of its patent protection (European Generic Medicines Association, 2009). It is possible however, that the prices of non-clustered drugs may be inflated as manufacturers try to compensate for lost revenue due to reference pricing.<sup>28</sup> It may also reduce the potential for price reductions on generic medicines (Kanavos, 2008). In essence, reference pricing introduces a price floor, as manufacturers have no incentive to price below the reference price level. However, evidence from Norway suggests that the introduction of reference pricing reduced the price of generic drugs subject to reference pricing, as well as therapeutic substitutes not included in the scheme (Brekke *et al.*, 2007). Reference pricing may result in an increase in cost-sharing (where patients choose to pay the excess cost of drugs priced above the reference price) unless accompanied by appropriate campaigns educating consumers on the equivalence of drugs within clusters (OECD, 2008). Administrative costs associated with set-up and maintenance of a reference pricing system must also be considered (Schneeweiss, 2007), although other countries have already done much of the work on the definition of clusters.

**TABLE 12.5**  
Reference Pricing Systems

Country	Reference Price System	Year of Introduction	Clustering of Reference Groups <sup>a</sup>
Australia	Yes	1996	Mix of ATC 3, 4 and 5
Canada	Yes	Depending on region and drugs plans	Depending on region and drugs plans
Germany	Yes	1989	Mix of ATC 4 and 5
Ireland	See text for current proposals	Not before 2011	Proposed at ATC 5
Netherlands	Yes	1991	Mix of ATC 3, 4 and 5
New Zealand <sup>b</sup>	Yes	1993	Mix of ATC 3, 4 and 5
Sweden	No	From 1993 to 2002	Not applicable
United Kingdom	No	Not applicable	Not applicable
United States	No	Not applicable	Not applicable

*Notes:* <sup>a</sup> ATC 3: Defines pharmaceuticals in the same pharmacological subgroup.  
 ATC 4: Defines a therapeutic group within the anatomic therapeutic chemical classification system.  
 ATC 5: Defines a single active ingredient or a fixed combination of active ingredients within the anatomic therapeutic chemical classification system.  
<sup>b</sup> PHARMAC does use reference pricing and does so on the basis of 'same or similar therapeutic effect'. This is informed by advice from clinical advisors. The main driver in determining the groupings is therapeutic effect rather than pharmacological action.

*Sources:* Australia: Healy *et al.* (2006) and Sweeny (2007)  
 Canada: Paris *et al.* (2007)  
 Germany, Ireland, Netherlands, Sweden and UK: Adapted from Vogler *et al.*, (2008)  
 Ireland: DoHC (2010a)  
 New Zealand: Danzon *et al.* (2003) and PHARMAC, personal communication [08 December 2009]  
 United States: Kanavos *et al.* (2005)

<sup>28</sup> Indeed, evidence from Germany suggests that the price of drugs included in reference pricing groups declined, but manufacturers compensated for this by increasing the prices of non-reference-priced drugs (Kanavos, 2008).

Germany introduced reference pricing in 1989<sup>29</sup>, followed by the Netherlands in 1991 and Sweden in 1993 (although Sweden discontinued it in 2002).<sup>30</sup> Outside Europe, Australia, New Zealand and the Canadian provinces of British Columbia and Ontario have all introduced reference pricing (Brekke *et al.*, 2007). It was estimated that the introduction of reference pricing in Germany resulted in annual cost savings of approximately 9 per cent of total pharmaceutical expenditure (Kanavos, 2008). In British Columbia, the application of reference pricing to three groups of cardiac drugs in 1997 achieved annualised savings of 3.6 per cent of total pharmaceutical expenditure on seniors, with no adverse effects on mortality or premature admission to a long-term care facility (Grootendorst *et al.*, 2002).

#### 12.4.2 Tendering/Sole Supply

When products are off-patent (and may therefore be available from both brand name and generic suppliers), an additional mechanism for controlling costs is to award contracts for sole supply. In New Zealand, the Pharmaceutical Management Agency of New Zealand (PHARMAC) often offers fixed term contracts for the supply of a specific medicine, with the contracts guaranteeing the winning manufacturer all or a significant share of the national market (Morgan *et al.*, 2007).<sup>31</sup> Tendering is used extensively in New Zealand. In 2009, approximately NZ\$100m of the NZ\$653m budget was spent on products under a sole supply agreement (approximately 15 per cent). In terms of volume this represents approximately 17m prescriptions out of a total of 36m (approximately 48 per cent).<sup>32</sup> However, the HSE does engage in sole supply contracting for the supply of vaccines in Ireland.<sup>33</sup>

Tendering can lead to substantial savings where the purchasing power is great and there are multiple potential sources for the product. Manufacturers and wholesalers will have strong incentives to provide the best possible price, given that providers who are not successful will not gain any market share. The US Veterans Administration (VA) estimates that it has saved over US\$1.5bn through national contracting arrangements between 1996 and 2003 (OECD, 2008), while savings of over NZD\$300m have been achieved in New Zealand over a ten-year period (PHARMAC, 2010).

<sup>29</sup> Reference pricing now applies to approximately 60 per cent of the German prescription drug market (Schneeweiss, 2007).  
<sup>30</sup> The Swedish reference pricing system (which applied only to off-patent and generic medicines) was replaced by a system of mandatory generic substitution by pharmacists in October 2002. The volume share of generic pharmaceuticals has increased significantly since the introduction of generic substitution. Mandatory generic substitution has only induced a moderate increase in the market share in terms of value, because generic substitution has led to a dramatic drop in prices on off-patent medicines (estimated at approximately 40 per cent) (PPRI, 2007b).

<sup>31</sup> In addition, in New Zealand the drugs budget is fixed each year and PHARMAC negotiates various deals (such as price-volume arrangements) with suppliers on all medicines so as not to breach it. There is a statutory requirement not to exceed the budget and in practice expenditure is slightly below the maximum each year (Office of Fair Trading, 2007).  
<sup>32</sup> PHARMAC, personal communication [15 February 2010].

<sup>33</sup> The HSE has recently initiated a new procedure for the tendering process for the supply of the human papillomavirus (HPV) vaccine to girls in the first year of secondary school. The procedure provides for a 'framework agreement' whereby interested suppliers apply to become part of the framework (i.e. akin to a panel), thus reducing administrative costs. It also provides for longer contract periods, as well as the promotion of competition in tender prices (HSE, personal communication; 27 January 2010 and DoHC, 2010b).

However, there are concerns that, given the small size of the Irish pharmaceutical market, tendering for sole supply of certain products may mean that other manufacturers of that product may leave the Irish market. Tendering for sole supply may also reduce patient choice. However, the New Zealand market is of a similar size to that of Ireland and New Zealand has successfully engaged in tendering for sole supply for many years. Indeed, there are now more generic suppliers in the New Zealand market and competition is strong. Where suppliers have left the market it has occurred only in terms of HQs re-locating to Australia and in no instance has a supplier ceased to sell in New Zealand.<sup>34</sup> In Ireland, the greatest potential for sole supply contracts may lie with the hospital sector, where, at present, hospitals negotiate individually rather than collectively with pharmaceutical manufacturers.<sup>35</sup>

### 12.4.3 Parallel Importing

Pharmaceutical parallel importing is the legal importation of a patented product from one country where it is legally marketed into a second country where the patent holder also markets that product, but without the authorisation of the patent holder.<sup>36</sup> A series of European Court of Justice rulings have underpinned its legitimacy (Kanavos *et al.*, 2005). Parallel importation of pharmaceutical products from non-EU or non-EEA countries into the EU is not permitted. Parallel imports are identical to the original manufacturer's products except that they may be packaged differently and may not carry the original manufacturer's warranty. Manufacturers undertake various strategies to protect their interests from parallel trade, such as applying for marketing authorisation for different dosages and strengths and rationing supply to wholesalers believed to be engaged in parallel trade, as this happens particularly in Canada (OECD, 2008). Parallel trade accounted for an estimated 2 per cent of the EU pharmaceutical market in 2003. However, parallel trade accounted for over 10 per cent of spending on pharmaceuticals in the Netherlands, UK, Sweden and Germany in 2007 (Glynn, 2009).

According to the IMB, there were 376 parallel traded pharmaceuticals authorised in Ireland in 2006 (out of a total of 3,389 reimbursable items) (PPRI, 2007c). Over the course of 2009 and early 2010, the weakness of sterling has resulted in a substantial increase in the number of parallel imported products in Ireland. In 2008, approximately 250 applications for reimbursement of parallel imported products

<sup>34</sup> However, there are some key differences between New Zealand and Ireland, in that New Zealand only has one or two domestic-based manufacturers and the vast majority of pharmaceuticals are and have always been imported. However, rather than leaving the New Zealand market, the most significant manufacturer in the New Zealand market has moved from an approach largely based around the domestic market to source 70-80 per cent of its revenue from export sales (PHARMAC, personal communication, 15 February 2010).

<sup>35</sup> Currently, 23 voluntary hospitals are involved in the Hospital Procurement Services Group (HPSG), whose primary objective is to maximise the value obtained by its member hospitals in the purchase of goods and services. Formal contracts are designed, tendered and awarded by the HPSG.

<sup>36</sup> In Ireland the IMB has responsibility for licensing nationally-authorised products which are parallel imported from another Member state of the EU or an EEA country and distributed on the Irish market. The imported product must have a current, full marketing authorisation in the country from which it is imported.



were received by the CPU of the HSE; the corresponding figure for 2009 was just under 700 applications (and this represented 65 per cent of all applications for reimbursement in 2009).<sup>37</sup>

The system for the pricing of parallel traded pharmaceuticals in Ireland does not differ from that of other pharmaceuticals. Parallel imports that comply with the criteria are separately identified from the originator product and reimbursed on the GMS and CDS. Currently therefore, savings achieved by parallel importing accrue to the distributor, rather than the State.<sup>38</sup> In some countries where a reference pricing system is in place and parallel imports account for a significant proportion of the market, such imports are included in the reference pricing system (e.g. Denmark, Germany, Netherlands) (Vogler *et al.*, 2008).

## 12.5 VOLUME AND PRODUCT MIX

Total expenditure on pharmaceuticals is a function not only of the price, but also the volume and mix of products that are consumed. In this section, we discuss a number of issues associated with volume and product mix, including the volume of products prescribed (and dispensed), patient cost-sharing, the market for generic drugs in Ireland, incentives for doctors and pharmacists to prescribe and dispense generically and economic evaluation of new and existing reimbursable items.

### 12.5.1 Volume

In 2000, 22.9m items were dispensed on 9.8m forms under the GMS Scheme (2.4 items per form) (see Table 12.6). By 2009, this had increased to 52.8m items on 16.9m forms (3.1 items per form). This represents an increase of 130.8 per cent in the number of items reimbursed, a 73.3 per cent increase in the number of forms and a 33.2 per cent increase in the number of items per form over the period 2000-2009.<sup>39</sup> For the DP Scheme, there was a 71.1 per cent increase in the number of items, an 87.0 per cent increase in the number of forms and an 8.5 per cent decrease in the number of items per form over the period 2000-2009.<sup>40</sup>

<sup>37</sup> HSE CPU, personal communication; 03 February 2010.

<sup>38</sup> Many countries, including Ireland, include provisions for rebates/clawbacks in their pricing agreements, in an attempt to benefit from such savings (see also Office of Fair Trading, 2007). See Section 12.3.1 for further details on the Irish provision for such rebates.

<sup>39</sup> Over the same period, the numbers eligible for a medical card increased by 20.7 per cent (from 1.148m in 2000 to 1.385m in 2009) (GMS-PB, 2001; PCRS, 2009).

<sup>40</sup> One possible contributory factor to increased volume of prescription drugs is an increase in potentially inappropriate prescribing. While it may also mean that essential medications are omitted, a recent review suggests that rates of potentially inappropriate among the older population in Ireland range from 21 per cent in primary care to 35 per cent in a hospital setting to 60 per cent in a nursing home setting (O'Mahony *et al.*, 2010). A further contributory factor is the increase in chronic disease among the population. Information from the US Medicare programme suggests that Medicare beneficiaries with five or more chronic conditions see an average of 13 physicians and fill an average of 50 prescriptions per year (Medicare Payment Advisory Commission, 2009).

**TABLE 12.6**

Number of Items Dispensed under the GMS and DP Schemes ('000), 2000-2009

	GMS			DP		
	No. of items	No. of forms	No. of items per form	No. of Items	No. of forms	No. of items per form
2000	22,882	9,737	2.4	7,776	1,843	4.2
2001	25,521	10,454	2.4	8,985	2,377	3.8
2002	29,500	11,551	2.6	9,063	2,504	3.6
2003	32,241	12,243	2.6	9,311	2,470	3.8
2004	35,030	12,794	2.7	9,933	2,567	3.9
2005	37,428	13,227	2.8	10,582	2,720	3.9
2006	40,569	13,932	2.9	11,872	3,084	3.9
2007	44,358	14,780	3.0	13,430	3,690	3.6
2008	47,534	15,740	3.0	13,596	3,626	3.8
2009 <sup>a</sup>	52,812	16,873	3.1	13,302	3,446	3.9
% change 00-09	130.8	73.3	33.2	71.7	87.0	-8.5

Source: PCRS, personal communication (31 August 2009)

### 12.5.2 Patient Cost-Sharing

While most resource-using decisions in relation to pharmaceuticals are made by doctors rather than patients, most countries have some form of cost-sharing for pharmaceuticals in an attempt to control the volume of products that are consumed (see Table A6.6). In Budget 2010, the Government announced that a user fee of 50c will be payable on each prescription item received under the GMS and LTI schemes, up to a monthly ceiling of €10 per family. New legislation is currently being drafted to give effect to the co-payment. In contrast, user fees for prescription drugs have been abolished in Northern Ireland since 01 April 2010.

Patient cost-sharing can take a number of forms, including co-payments, co-insurance and deductibles. User fees can be used as a source of additional revenue (to supplement available resources collected by the State) where the costs of administration are low. However, most resource-using decisions are made by providers (doctors, pharmacists) rather than patients, and, as such, supply-side initiatives such as generic prescribing and substitution have greater potential to influence total demand for, and expenditure on, pharmaceuticals. More importantly, however, user fees have been observed to have a dissuasive impact on health-care utilisation and are at risk of *'impairing access to needed medicines in addition to those that are less effective or unnecessary'* (OECD, 2008; 139). In the US, Kaiser Permanente found that an increase in pharmaceutical cost-sharing led to patients skipping their blood pressure and other essential medications, an increase in hospital costs and a spike in mortality (Mongan, 2009). User fees are also criticised for negative equity implications and disproportionately affect the poor and chronically ill (see Chapters 9 and 10 for discussion of the evidence on user fees).

### 12.5.3 Generic Prescribing and Substitution

A generic pharmaceutical is the bioequivalent of a branded original pharmaceutical, whose patent on the active ingredient has expired (Vogler *et al.*, 2008). In Ireland, generic pharmaceuticals, also known as patent-expired pharmaceuticals, are reimbursed as per the IPHA/APMI Agreements. Substituting branded or unbranded generic products for proprietary drugs can result in significant cost savings. In the United States for example, it was found that at the time of generic launch, the average generic price was 25 per cent lower than the originator brand price and, as more generics entered the market, the price fell to approximately one-fifth of the initial average generic price (Kanavos, 2008). A survey of five European countries also found that the average difference between the branded price and the generic price up to three years after first entry ranged from 20 per cent in Italy to 80 per cent in the UK (Kanavos, 2008).

In 2008, 18 per cent of prescription items on the GMS Scheme and 11 per cent of prescription items on the DP/LTI schemes were dispensed generically (NCPE, 2009). Proprietary preparations of 25 and 27 per cent of prescription items were dispensed when a generic equivalent was available on the GMS and DP/LTI schemes respectively (and these proportions have been rising over time) (Barry *et al.*, 2008). Table 12.7 provides further details on the use of generics on the GMS, DP and LTI schemes in Ireland in 2008. The recent working group report on a proposed model for reference pricing and generic substitution proposes the introduction of legislation which would allow pharmacists to dispense the lowest price interchangeable medicine (DoHC, 2010a).

In an international comparison of generic market shares across 22 OECD countries in 2004, Ireland had the third lowest market share by value (5 per cent), with a market share by volume of 13 per cent. The respective figures for the UK were 21 and 49 per cent (Kanavos, 2008). In addition, there is evidence that the generic share of the UK market has continued to increase; in 2007 the volume market share of generics was just under 60 per cent (European Generic Medicines Association, 2009). It is estimated that 83 per cent of prescriptions under the UK NHS were issued generically in 2007 (with 64 per cent dispensed generically) (Barry *et al.*, 2008).<sup>41</sup>

**TABLE 12.7**

Generic and Proprietary Drug Volumes and Expenditures on the GMS and DP/LTI Schemes, 2008

	GMS	DP/LTI
% generic drugs dispensed	18	11
% proprietary drugs dispensed (where a generic equivalent was available)	25	27
% total ingredient cost accounted for by generics	8	4
% total ingredient cost accounted for by proprietary drugs (where a generic equivalent was available)	19	17

Source: NCPE, 2009

<sup>41</sup> However, there is some evidence that rates of generic prescribing vary across the UK. In 2005, for example, the rate of generic prescribing in the community was estimated at 70 per cent in England, in comparison with only 45 per cent in Northern Ireland (Office of Fair Trading, 2007).

A key driver of the high rate of generic prescribing in the UK has been the acceptance by UK practitioners of writing prescriptions by generic name without specifying the brand or manufacturer, i.e. open prescribing (Barry *et al.*, 2009). The HSE advice to doctors states that *'doctors have been asked for their co-operation in securing whatever economies are possible without reducing the effectiveness of the service or affecting the best interests of patients. They have been asked to consider, when prescribing, whether there is an equally effective but less expensive medicinal product available'* (PCRS, 2006a; 77-78). More recently the Irish Medical Council 'Guide to Professional Conduct and Ethics for Registered Medical Practitioners' states that doctors *'have a duty to assist in the efficient and effective use of health-care resources.....(and) should be aware of the wider need to use limited health-care resources efficiently and responsibly'* (Medical Council, 2009: 49.2). In particular, the Council encourages doctors *'to prescribe bio-equivalent generic medicines where they are safe and effective'* (Medical Council, 2009: 49.2).

In Ireland, doctors are not obliged to write prescriptions generically and there are no financial incentives for them to do so. In many countries, efforts to influence prescribing patterns include practice feedback, benchmarking and continuing medical education (OECD, 2008). In Ireland, there is no standardised feedback mechanism for GPs; GPs receive periodic benchmarking information on prescribing practice from the PCRS and are provided with prescribing protocols from a number of different sources. However, the extent to which treatment guidelines alone are effective in influencing prescribing behaviour is limited and financial incentives are often necessary. In 2001 in Germany, individual GPs were given a prescribing target, with penalties imposed if the GP exceeded the target. In the UK, policies such as medical school teaching policies and the use of computer software suggesting generic alternatives to branded medicines, are seen as successful strategies (OECD, 2008). Table 12.8 provides details on the extent and nature of policies to encourage generic substitution across the eight comparator countries examined in this report, as well as Ireland. The recent DoHC working group highlights the need to communicate effectively with GPs on the proposed new system of medicine interchangeability (DoHC, 2010a).

**TABLE 12.8**  
Use of Generic Pharmaceuticals

Country	Generic Prescribing <sup>a</sup>	Generic Substitution <sup>b</sup>	Further Generic Promotion
Australia	Indicative INN prescribing: Government regulations to ensure that prescribing software used by doctors enables the prescribing of a drug by its INN, unless the prescriber specifically chooses a brand.	Brand substitution by pharmacists without reference to the prescriber is permitted for PBS prescriptions under certain conditions.	Information campaign to target prescribers, pharmacists and consumers highlighting the safety and quality of generic medicines and the importance of providing consumers with choice. Mandatory flagging of bioequivalent medicines in the PBS schedule to promote substitution. Pharmacy price lists to provide consumers with greater information on the cost of individual brands of medicines.
Canada	Indicative generic prescribing	Indicative generic substitution	Financial incentives for generic utilisation differ from one province to another but are generally directed to patients rather than to pharmacists. Information activities to prescribers by some sick funds
Germany	Indicative INN prescribing	Obligatory generic substitution	Information activities to patients
Ireland	Indicative generic prescribing (INN or brand name)	Currently not allowed, although recent proposals (June 2010) aim to allow pharmacists to substitute interchangeable medicines	Information activities to patients
Netherlands	Indicative INN prescribing	Indicative generic substitution	Information activities targeting actors and public, electronic prescribing software supporting INN prescribing
New Zealand	Indicative generic prescribing	Pharmacists must dispense as per the prescription, or seek the prescribers permission to substitute. Pharmacists often seek substitution agreements with local prescribers which allow substitution without having to seek consent in every case.	There is very little promotion of generics by manufacturers although this is increasing over time. PHARMAC does support generic prescribing messages and provides information for patients (often via health professionals using leaflets) around significant brand changes to generic medicines. There is electronic prescribing software in New Zealand, but it is not particularly helpful with respect to generic prescribing.
Sweden	Not allowed	Obligatory generic substitution	No special generic promotion activities
United Kingdom	Indicative generic prescribing	Not allowed currently but proposals have been made to implement generic substitution. A consultation document on the topic has been issued.	Information activities to prescribers by Local Primary Care Organisation
United States	Indicative generic prescribing	Indicative generic substitution: each state has a law that lets pharmacists substitute generic drugs for many brand-name products under certain conditions.	Information activities to patients

<sup>a</sup> Generic prescribing: Physicians prescribing by International Non-proprietary Name (INN).

<sup>b</sup> Generic substitution: Practice of substituting a pharmaceutical, whether marketed under a trade name or generic name (branded or unbranded generic), with a pharmaceutical, often a cheaper one, containing the same active ingredient(s).

*Sources:* Australia: Healy *et al.* (2006)

Germany, Ireland, Netherlands, Sweden and UK: Adapted from Vogler *et al.* (2008)

Ireland: DoHC (2010a)

New Zealand: PHARMAC, personal communication [08 December 2009]

United Kingdom: Department of Health (2010)

United States: Kanavos *et al.* (2008); and Federal Trade Commission, [www.ftc.gov/bcp/edu/pubs/consumer/health/hea06.shtm](http://www.ftc.gov/bcp/edu/pubs/consumer/health/hea06.shtm) [last accessed 24 November 10]

In January 1993, an agreement was reached between the DoHC and the IMO which included provision for the allocation of an individual annual drug target for each GP to enable him/her to better pursue the objective of responsible and cost effective prescribing (NCPE, 2007). The scheme, known as the Indicative Drug Target Scheme (IDTS), was suspended in 2005 (DoHC, personal communication; 22 June 2010). Savings were used to further develop general practice by allocating 50 per cent to the individual GP for investment in specific practice development and 50 per cent to the Health Board for overall development of general practice (Murphy, 1997). Prescribing targets were adjusted for panel size and demographics, as well as 'high cost' patients. The scheme was voluntary and there were no sanctions on those who failed to meet their target. It was estimated that IR£13.5m was saved in the first year of the scheme and a trend towards increased generic prescribing was reported, with no discernable negative effects on quality of prescribing (Murphy, 1997). However, the only year that the ingredient cost per item fell was 1993, the year the IDTS was introduced (Tilson *et al.*, 2003). Similarly in the UK, the relative reduction in costs (attributed to generic prescribing) for GP fund holders, compared to GP non-fund holders, was not sustained after three years (Tilson *et al.*, 2003).

In terms of encouraging the use of generics at the pharmacy level, there are currently only very general guidelines in relation to the substitution of generics by pharmacists in Ireland. The Pharmaceutical Society has also stated that pharmacists should support the use of cost-effective therapies and prudent use of health-care resources (Pharmaceutical Society of Ireland, 2009). While the 'Information and Administrative Arrangements for Pharmacists' drawn up by the HSE states that *'where a Doctor prescribes a medicinal product without specifying a manufacturer's name or brand and the pharmacist receives such prescriptions with reasonable frequency the pharmacist will be expected to dispense one of the less expensive, if not the least expensive, of the preparations of the drug properly available to the market'* (PCRS, 2006b; 77-78), pharmacists have no incentive to substitute a generic product under the current reimbursement regime. In addition, under the DP and LTI schemes the pharmacist faces an incentive to dispense the most expensive product as a 20 (previously 50) per cent mark-up on the ex-wholesale price is available. The current proposals on medicine interchangeability, while allowing for the substitution of cheaper interchangeable medicines on the part of pharmacists, do not make such substitution mandatory.

In encouraging pharmacists to dispense generics, fixed fees per prescription or regressive margins leave pharmacists indifferent (fixed fees) or provide an incentive (regressive margins) to dispense a generic (Kanavos, 2008).<sup>42</sup> In Ireland, pharmacists can substitute a parallel imported product for originators, although in this instance the cost savings do not accrue to the State. Germany and Sweden have mandatory

<sup>42</sup> On the other hand, regressive margins may encourage the dispensing of products in smaller packet sizes.

generic substitution by pharmacists, unless expressly forbidden in writing by the prescribing physician (OECD, 2008).

The potential impact of implementing a system of generic substitution on the GMS and CDS in Ireland has been estimated using data from 2009. It was found that substitution of the cheapest generic equivalent preparation of the top 100 drugs by expenditure in the GMS and DP schemes would save €55.4m and €22.3m annually respectively (DoHC, 2010a).<sup>43</sup> Prior to the current proposals on medicine interchangeability, policy initiatives have focussed on price reductions for off-patent drugs as part of the latest IPHA agreement. The two-stepped price reduction and the recent 40 per cent reduction applied to the ex-factory price of off-patent drugs has the potential to effect significant cost savings, but only if such drugs are prescribed.<sup>44</sup>

#### 12.5.4 Economic Evaluation and Application for Reimbursement

The 2006 IPHA and APMI agreements introduced an explicit provision for the economic evaluation of new and existing pharmaceutical products for the first time. The HSE reserves the right to assess the cost-effectiveness of new and existing technologies (medicines, diagnostics and devices) that may incur a high cost or have a significant budget impact prior to reimbursement. However, to date, no products have been 'delisted' from any of the schemes.<sup>45</sup>

In Ireland, both HIQA and the NCPE have important roles in relation to the decision to reimburse products under the GMS and CDS. One of the functions of HIQA is to *'evaluate the clinical and cost effectiveness of health technologies including drugs and provide advice arising out of the evaluation to the Minister and the Executive'* (Government of Ireland, 2007; 13). The aim of the NCPE (which is funded by the HSE) is to *'promote expertise in Ireland for the advancement of the discipline of pharmacoeconomics through practice, research and education. Activities of the centre include economic evaluation of pharmaceutical products and the development of cost effective prescribing'* (NCPE, 2010). HIQA therefore, has a wider remit than NCPE, with the latter primarily involved in pharmacoeconomic assessments for products supplied under the GMS and CDS.

<sup>43</sup> While the current anomaly in the price of generics and off-patent drugs (as a result of the February 2010 amendments to the 2006 IPHA agreement) reduces the potential for immediate cost savings as a result of generic substitution, the re-negotiation of the 2006 APMI agreement in September 2010 should highlight the cost savings that can be generated by generic prescribing and substitution.

<sup>44</sup> As a result of the 40 per cent price reduction for off-patent drugs and the fact that the APMI agreement does not expire until September 2010, it is reported that many generics are now more expensive than the patent equivalent (Carey, 2010).

<sup>45</sup> With the exception of nicotine replacement therapies which are not available under the DP scheme, the lists of reimbursable items under the GMS and DP schemes are identical. It has been suggested that moving towards separate reimbursable lists could assist in 'delisting' items from the DP scheme (Barry *et al.*, 2008). However, it is not clear that moving to separate reimbursable lists is the mechanism by which items could be 'delisted'; appropriate economic evaluation of existing medications should facilitate 'delisting'. This could apply in particular to certain 'lifestyle drugs'. Many of the lifestyle drugs reimbursed under the GMS and DP schemes are not publicly reimbursed in other European countries. For example, sildenafil (used for the treatment of erectile dysfunction) is not reimbursed in many European countries (Barry *et al.*, 2008).

Indeed, since September 2009, in collaboration with the CPU of the HSE, NCPE consider the cost-effectiveness of all pharmaceuticals following receipt of an application for reimbursement under the schemes.<sup>46</sup> Prior to reimbursement all pharmaceuticals are subjected to a preliminary rapid review that usually takes two weeks. Following this, all high cost drugs or products, where a significant budget impact is anticipated, are sent to NCPE for a formal pharmacoeconomic assessment (PEA). In addition, products about which there is any query in relation to value for money may be subject to a formal PEA. The PEA will be completed in under three months as per the IPHA agreement (NCPE, 2010).<sup>47</sup>

Most OECD countries use pharmacoeconomic assessment in their pricing and reimbursement decisions albeit to varying degrees. In England and Wales, the National Institute for Health and Clinical Excellence (NICE) undertakes pharmacoeconomic assessments. New medicines are subsidised by the National Health Service (NHS) as soon as they are marketed, unless they are on a negative list.<sup>48</sup> NICE does not evaluate all drugs entering the market. Australia's Pharmaceutical Benefits Advisory Committee serves a similar function to that of NICE, making recommendations as to whether new products should be listed on the positive list used in Australia. Canada's Common Drug Review is an intergovernmental body that evaluates new products as to their suitability for inclusion on the formularies of participating publicly-funded drug plans.<sup>49</sup> Sweden's Pharmaceutical Benefits Board was created in 2002 to decide on inclusion of products in the national positive list at the price proposed by the manufacturer. The question of whether the product is cost effective at the proposed price is the primary consideration. Pharmacoeconomic assessments are mandatory in the Netherlands for the reimbursement of new drugs. In Germany, the Institute for Quality and Efficiency in Health care has a legislative mandate to perform pharmacoeconomic assessments to inform decisions regarding which pharmaceuticals (and other health technologies) should be funded under the statutory health insurance system (OECD, 2008).

<sup>46</sup> Under the IPHA agreement it is stated that '*suppliers should notify the HSE when (or as soon as possible after) applying for a marketing authorisation, of intention to seek reimbursement approval*' (HSE, 2006; 2). In addition, a pharmacist may apply for once-off reimbursement from PCRS after they dispense an item to a GMS or DP patient which is not on the current list of reimbursable items.

<sup>47</sup> There were eight full pharmacoeconomic assessments in 2009 and four rapid reviews not leading to full PEA. Therefore, 12 technologies were assessed that year. There have been three assessments thus far in 2010 (two medicines and one vaccine) (NCPE, personal communication; 21 January 2010). In 2009, a review of all non-drug items reimbursed under the GMS and DP schemes was undertaken (HSE, 2010b).

<sup>48</sup> The criteria by which pharmaceutical products are excluded from reimbursement (placed on the negative list) and the mechanism by which they are evaluated for reimbursement status (placed on the positive list), vary among countries. Usually, therapeutic benefit is the most important criterion, although cost effectiveness relative to products already reimbursed is also increasingly taken into consideration (Kanavos, 2001).

<sup>49</sup> In Ontario, the Drug Quality and Therapeutics Committee (DQTC) assesses the suitability of drug products for government funding by evaluating the therapeutic value of drug products, the interchangeability of generic drug products and the value for money of drug products ([www.health.gov.on.ca/english/public/pub/drugs/dqtc.html](http://www.health.gov.on.ca/english/public/pub/drugs/dqtc.html) for further details) [last accessed 27 June 2010].



Pharmacoeconomic studies are generally not considered to be transferable across countries because of differences in countries' costs and epidemiological contexts (OECD, 2008).<sup>50</sup> Nevertheless, some of the new EU member states that lack the sophisticated infrastructure to undertake systematic pharmacoeconomic studies of their own use the results of studies in other countries in their pricing and reimbursement decisions. This has been facilitated by the creation of a European Network of Health Economic Evaluation Databases (EURONHEED). The continued development of the EUnetHTA Collaboration should also be noted. EUnetHTA focuses on collaboration on Health Technology Assessment (HTA) in Europe. It facilitates efficient use of resources available for HTA, creates a sustainable system of HTA knowledge sharing and promotes good practice in HTA.

### 12.6 SUMMARY

State expenditure on pharmaceuticals in Ireland has increased considerably in recent years. A combination of price and volume increases, as well as changing product mix, is responsible for this growth in expenditure. A recent study has projected that the number of items and expenditure on the GMS and CDS will at least double by 2020 (Bennett *et al.*, 2009). While the issues surrounding hospital prescribing have not been discussed explicitly in this chapter, the fact that a significant portion of prescriptions originate in a hospital setting has important implications for the sustainability of state expenditure on the GMS and CDS. In addition, notwithstanding the significant changes to the pricing mechanism introduced recently, there remains scope for further savings in state expenditure on pharmaceuticals in Ireland. Mechanisms to control state expenditure on pharmaceuticals in other countries have focused on reference pricing, contracts for sole supply, incentives for doctors and pharmacists (e.g. generic prescription and substitution, clinical practice guidelines, etc.) and incentives for patients (OECD, 2008).

The introduction of a reference pricing regime, whereby the State sets the reimbursement price for (therapeutically) equivalent drugs, has the potential to substantially reduce expenditure on the GMS and CDS. The recent announcement of the introduction of a reference pricing system at ATC level 5 is welcome in this regard. In addition, it removes the necessity for focussing on incentives for doctors and pharmacists to prescribe and dispense generically, although reference pricing is more cost effective when accompanied by generic prescribing on the part of doctors and mandatory generic substitution on the part of pharmacists. It may also reduce the need for the off-patent price reductions that are a feature of the current HSE-IPHA agreement. The design of the system is crucial; reference pricing is more effective when it is applied to patent as well as off-patent products and where products are clustered at the therapeutic level (rather than at the bioequivalent level). For a reference pricing system to operate, it must involve the provision of

<sup>50</sup> However, the extent to which this argument applies to evaluations carried out in the UK (and which are applicable to Northern Ireland which has a similar epidemiological profile to that of the Republic of Ireland), is debatable.

improved information to doctors, pharmacists and patients. Treatment and prescribing protocols can assist in this regard. In a small market such as Ireland, inviting tenders for sole supply contracts may be attractive, as it takes the emphasis off unit price and focus on the benefits obtained for a given level of expenditure (OECD, 2008).

In many countries, a formal process of economic evaluation, combined with a 'positive list' for reimbursable drugs, means that the process by which drugs are reimbursed is open and transparent. While the IPHA agreement provides for the evaluation of existing drugs on the GMS and CDS lists, to date no drugs have been 'delisted'. Together with the NCPE (who carry out pharmacoeconomic assessments of pharmaceuticals seeking reimbursement under the schemes), HIQA are ultimately responsible for evaluating the clinical and cost effectiveness of all drugs and therapies supplied in the Irish market.

The rate of generic prescribing on the GMS and CDS in Ireland is low by international standards and continues to decline. Some countries focus on incentives for doctors to prescribe generically, while others allow pharmacists to substitute generics unless expressly forbidden by the prescribing physician. At present in Ireland, neither the GP nor the pharmacist has any incentive to prescribe or dispense generically (and pharmacists have an incentive to dispense the most expensive product to patients covered by the DP and LTI schemes, as they receive a 20 per cent mark-up on the ex-wholesale price). While the introduction of a reference pricing system would reduce the need to rely on incentives for doctors and pharmacists to prescribe and dispense generics, the scope of the reference pricing system would need to be sufficiently broad to eliminate the need for such measures entirely. The recent proposals in relation to medicine interchangeability, while not recommending mandatory generic substitution on the part of pharmacists, have the potential to affect significant cost savings on the GMS and CDS.

Reference pricing, tenders for sole supply and generic prescribing and substitution could have a very significant impact on the price and product mix of medicines supplied under the GMS and CDS. However, they do not address the issue of the volume of products prescribed and reimbursed under the GMS and CDS. Clinical protocols/guidelines are one way in which other countries are trying to influence the prescribing behaviour of doctors. Such guidelines, which are usually related to particular diseases or conditions, assist doctor decision-making and include best prescribing practice (OECD, 2008). Prescription monitoring and budgets for physicians have also been used to control the volume of medicines prescribed in other countries (Vogler *et al.*, 2008).

The above discussion has focused on supply side initiatives; patient demand (and patient preferences for particular products) is also important in explaining escalating expenditure on pharmaceuticals. It was announced in Budget 2010 that a user fee of 50c will be payable on each prescription item received under the GMS and LTI schemes, up to a monthly ceiling of €10 per family (Department of Finance, 2010). New legislation is required to give effect to the co-payment and the legislation is expected to be finalised in this Dáil term. In contrast, user fees for prescription drugs have been abolished in Northern Ireland since 01 April 2010.

User fees can be used as a source of additional revenue (to supplement available resources collected by the state) where the costs of administration are low. However, most resource-using decisions are made by providers (doctors, pharmacists) rather than patients, and as such, supply-side initiatives such as reference pricing, clinical practice guidelines, generic substitution, etc. have greater potential to influence total demand for, and expenditure on, pharmaceuticals. More importantly however, user fees have been observed to have a dissuasive impact on health-care utilisation and have negative equity implications in that they disproportionately affect the poor and chronically ill.

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# Chapter 13

## Staff Costs

### 13.1 INTRODUCTION

In 2009, just over 50 per cent of total public health expenditure, approximately €7.5bn, was spent on pay. At the end of 2009, there were 109,753 whole time equivalents (WTEs) employed in the public health service (with public health employment accounting for approximately 30 per cent of total public sector employment). With the public health pay bill accounting for approximately 41 per cent of total public expenditure (Department of Finance, 2009), concerns over the sustainability of public sector expenditure on pay are not new, nor are they confined to the health sector. Such concerns led to the implementation of a number of cost saving measures over the course of 2009, the most recent of which was a general public service pay cut announced in the 2010 Budget in December 2009. In terms of limiting the growth in public health employment, the 'Employment Control Framework' is a key component of attempts to limit the public health pay bill, while the recent 'Public Service Agreement 2010-2014', if fully implemented, has the potential to affect significant change in the structure of public health employment.

In this section, we concentrate on a number of issues associated with public health sector employment, namely the level and composition of employment, the level and composition of pay and working terms and conditions.<sup>1</sup> Due to the scale of the task involved in comparing the Irish experience with that of the eight countries examined in this report, we focus here on benchmarking the Irish experience with that of the UK. Given the similarities in education and training, culture and language across the two countries, comparisons between Ireland and the UK are particularly valid. Section 13.2 examines issues associated with the level and composition of employment in more detail, while Section 13.3 focuses on pay. Section 13.4 discusses current attempts to limit both the level of public health employment and expenditure on public health pay. Section 13.5 discusses issues associated with working terms and conditions, including an attempt to benchmark Irish experience with that of the UK, while Section 13.6 summarises and concludes.

<sup>1</sup> Of course, the private health sector in Ireland also employs large numbers of individuals. Figures from the CSO suggest that total employment in the health sector (public and private, on a headcount basis) in Q4 2009 was 233,700 ([www.cso.ie/px](http://www.cso.ie/px)) [last accessed 27 June 2010]. In December 2009, 127,105 individuals were employed in the public health service (also measured on a headcount basis) (HSE, personal communication; 02 July 2010), implying that there were 106,595 individuals employed in the private health sector at the end of 2009.

## 13.2 LEVEL AND COMPOSITION OF EMPLOYMENT IN THE PUBLIC HEALTH SERVICE

### 13.2.1 Ireland

At the end of 2009, there were 109,753 WTEs employed in the public health service. Over the period 2000-2006, the number of WTEs employed in the public health service has increased by 32.7 per cent and fell by 1.6 per cent between 2007 and 2009 (due to a change in methodology in early 2007, totals for the period 2000-2009 are not directly comparable).<sup>2,3</sup> Looking in more detail at the composition of the public health workforce over the period 2000-2009, Table 13.1 shows that the largest increase in (whole time equivalent) employment occurred for the 'health and social care professionals' category and to a lesser extent for the 'management and administration' and 'medical/dental' categories. The majority of the large increases in employment occurred in the earlier part of this decade. For example, the large increase in the 'management and administration' category actually occurred prior to 2005 (and the establishment of the HSE), with the number of WTEs in this category increasing from 12,366 to 17,262 (39.6 per cent) over the period 2000-2006.

**TABLE 13.1**  
Public Health Service Whole Time Equivalents (WTEs), 2000-2009

	Management/ Administration	Medical/ Dental	Nursing	Health and Social Care Professionals	General Support/Other Patient and Client Care <sup>a</sup>	Total
2000	12,366	5,698	29,177	7,613	25,216	80,070
2001	14,714	6,285	31,429	9,228	28,645	90,301
2002	15,690	6,775	33,395	12,577	27,242	95,679
2003	15,766	6,792	33,766	12,692	27,485	96,501
2004	16,157	7,013	34,313	12,830	28,410	98,723
2005	16,699	7,266	35,248	13,952	28,812	101,978
2006	17,262	7,712	36,737	14,913	29,649	106,273
2007	18,043	8,005	39,006	15,705	30,746	111,505
2008	17,967	8,109	38,108	15,980	30,861	111,025
2009	17,611	8,083	37,466	15,973	30,620	109,753
% change 00-06	39.6	35.3	25.9	95.9	17.6	32.7
% change 07-09	-2.4	1.0	-3.9	1.7	-0.4	-1.6

Notes: All figures are presented for December of the relevant year.

From March 2007, a change in methodology resulted in the inclusion of certain posts and grades not previously counted, as well as agencies subsumed into the HSE (CSO, 2009; DoHC, personal communication; 30 June 2010). For that reason, it is not accurate to make a direct comparison between pre- and post-2007 figures.

<sup>a</sup> General support includes maintenance/technical services (categories which are aggregated by the HSE for the presentation of WTE figures), as well as those engaged in 'other patient and client care' (which are not separately identified prior to 2001).

Sources: DoHC, 2009; HSE, 2010a

<sup>2</sup> Over the period 2000-2006 (2007-2009), the population of Ireland increased by 11.6 per cent (2.8 per cent), while the numbers 15+ in employment increased by 21.2 per cent (11.7 per cent) and the numbers employed in the public service increased by 18.3 per cent (-2.0 per cent) (calculated from [www.cso.ie/px](http://www.cso.ie/px)) [last accessed 27 June 2010].

<sup>3</sup> From March 2007, a change in methodology resulted in the inclusion of certain posts and grades not previously counted, as well as agencies subsumed into the HSE (CSO, 2009; DoHC, personal communication; 30 June 2010). For that reason, it is not accurate to make a direct comparison between pre- and post-2007 figures.

Table 13.2 provides further detail again on the composition of employment within the two fastest growing groups of public health employment over the period 2000-2009, namely the 'health and social care professionals' and 'management and administration' categories. The number of grades within various categories makes it difficult to compare across time (particularly, as new grades were established and old grades abolished); however, within the 'other health and social care professionals' category, the increase in professional grades such as social workers, physiotherapists and speech and language therapists is apparent. Within the 'management and administration' category, growth in the more senior clerical grades was most pronounced over the period 2000-2006, with the numbers employed in grades V and VI doubling over the period and those in grades IV and VII increasing by 83.0 per cent and 96.2 per cent respectively over the same period. Despite an overall reduction in the 'management and administration' grade of 2.4 per cent since 2007, the numbers of grades IV, V and VII have continued to increase.

**TABLE 13.2**  
Public Health Service Whole Time Equivalents (WTEs) (Detail), 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	% change 00-06	% change 07-09
<b>Health and Social Care Professionals</b>												
Social Care Worker	-	-	-	1,053	1,565	2,152	2,366	2,523	2,582	2,551	n/a	1.1
Medical Scientist	-	-	990	1,026	1,068	1,098	1,129	1,152	1,161	1,141	n/a	-1.0
Social Worker	730	833	995	932	962	982	1,041	1,048	1,062	1,086	42.6	3.6
Physiotherapist, Senior	255	422	532	566	575	630	693	747	809	839	171.8	12.3
Social Care Leader	-	-	-	470	730	778	799	786	759	756	n/a	-3.8
Occupational Therapist, Senior	182	292	377	421	423	500	537	598	651	675	195.1	12.9
Medical Scientist, Senior	-	-	392	473	458	484	498	512	533	533	n/a	4.1
Physiotherapist	440	423	460	406	448	506	506	530	497	492	15.0	-7.2
Radiographer	518	537	557	466	459	467	463	474	488	474	-10.6	0.0
Speech and Language Therapist, Senior	148	209	272	265	276	313	372	384	424	434	151.4	13.0
All other grades	5,213	6,429	7,916	6,541	5,562	5,981	6,448	6,885	6,958	6,930	23.7	0.7
Unclassified	126	82	87	72	304	61	61	67	57	64	-51.6	-4.5
<b>Total</b>	<b>7,613</b>	<b>9,228</b>	<b>12,577</b>	<b>12,692</b>	<b>12,830</b>	<b>13,952</b>	<b>14,913</b>	<b>15,705</b>	<b>15,980</b>	<b>15,973</b>	<b>95.9</b>	<b>1.7</b>
<b>Management/ Administration</b>												
Clerical Officer	6,694	8,092	8,032	7,940	8,046	8,119	8,199	8,327	8,077	7,730	22.5	-7.2
Grade IV	2,083	2,765	2,997	3,122	3,306	3,540	3,811	4,052	4,127	4,282	83.0	5.7
Grade V	663	1,054	1,252	1,294	1,319	1,456	1,485	1,581	1,620	1,637	124.0	3.5
Grade VI	484	723	890	925	942	949	1,015	1,082	1,094	1,034	109.7	-4.4
Grade VII	468	584	769	784	805	883	918	969	980	973	96.2	0.4
Grade VIII <sup>a</sup>	6	271	460	469	496	521	602	716	700	687	-	-4.1
Supplies Officer Grade D	100	113	173	170	186	178	195	179	176	169	95.0	-5.6
General Manager	-	-	-	-	-	-	-	118	158	156	n/a	32.2
Supplies Officer Grade C	80	86	95	101	106	126	133	158	161	153	66.3	-3.2
Telephonist	228	160	166	159	157	142	133	131	123	118	-41.7	-9.9
All other grades	1,328	651	713	708	714	728	721	682	698	638	-45.7	-6.5
Unclassified	233	215	144	94	82	57	51	47	55	35	-78.1	-25.5
<b>Total</b>	<b>12,366</b>	<b>14,714</b>	<b>15,690</b>	<b>15,766</b>	<b>16,157</b>	<b>16,699</b>	<b>17,262</b>	<b>18,043</b>	<b>17,967</b>	<b>17,611</b>	<b>39.6</b>	<b>-2.4</b>

Notes:

All figures are presented for December of the relevant year.

From March 2007, a change in methodology resulted in the inclusion of certain posts and grades not previously counted, as well as agencies subsumed into the HSE (CSO, 2009; DoHC, personal communication; 30 June 2010). For that reason, it is not accurate to make a direct comparison between pre- and post-2007 figures.

Figures for the top ten grades (by WTEs) in December 2009 are presented. With the exception of unclassified grades, all other grades are aggregated.

Ranked in descending order of WTEs (i.e. the largest single grade within the management/administration category in December 2009 was 'clerical officer').

<sup>a</sup> Growth rate over the period 2000-2006 for Grade VIII is not calculated due to the small number in 2000.

Source: HSE, personal communication [12 April 2010]

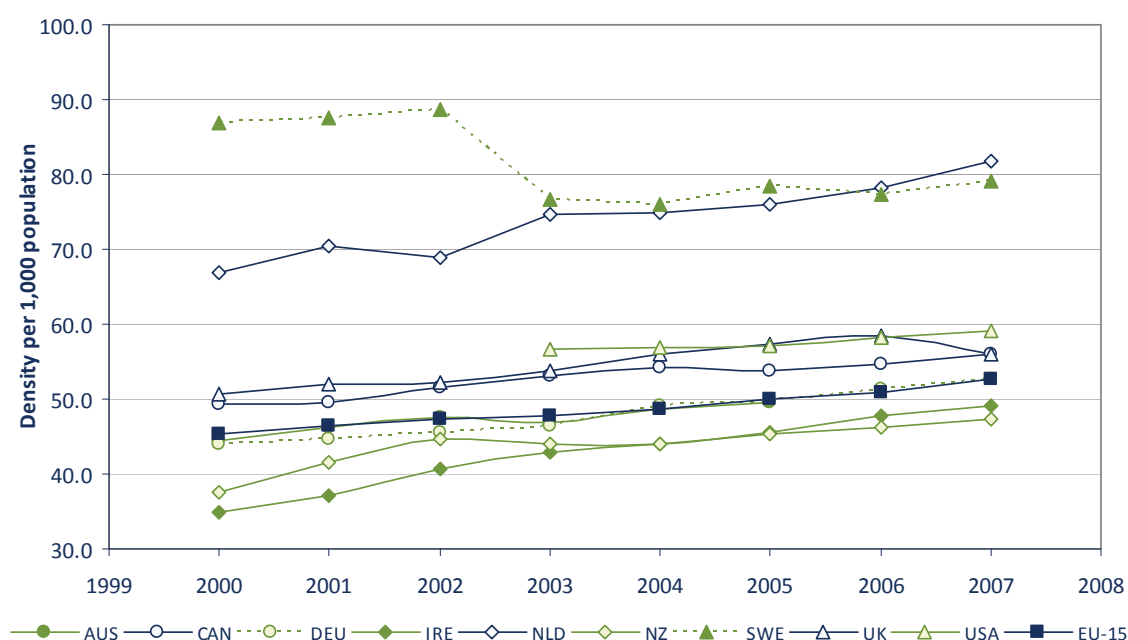
## 13.2.2 International Comparisons

### 13.2.2.1 OECD

Comparing the Irish experience with that of the eight other OECD countries examined in this report, Figure 13.1 illustrates that in terms of total employment in the health and social work sectors, Ireland experienced the fastest rate of growth over the period 2000-2007 (5.0 per cent mean average annual growth rate, in comparison with the next highest, New Zealand at 3.3 per cent). Despite this, Ireland still ranks second to last in terms of total health and social work employment per 1,000 population.<sup>4</sup>

**FIGURE 13.1**

Total Health and Social Care Employment (density per 1,000 population), 2000-2007



*Notes:* Includes all persons (headcount) working in health care and social work. It includes all persons classified under International Standard of Industrial Classification (ISIC) codes 851 (human health), 852 (veterinary) and 853 (social work) (OECD, 2009a). Sweden changed the method of collecting such statistics after 2004.

*Source:* OECD, 2009a

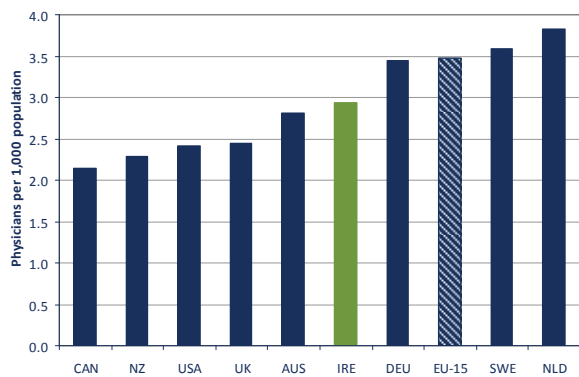
Figures 13.2 to 13.5 present (crude) data on the numbers of physicians, dentists, pharmacists and nurses per 1,000 population in 2006.<sup>5</sup> While Ireland would seem to have broadly comparable numbers of physicians and dentists per 1,000 population as the comparator countries, the number of pharmacists and nurses per 1,000

<sup>4</sup> It must be noted that, due to differences in data collection methods, sources and definitions, all OECD comparisons made here must be treated with caution; precise inclusions and exclusions are outlined in OECD (2009a).

<sup>5</sup> Due to differences across the OECD in what constitutes a general practitioner and a medical specialist, we present aggregate figures for doctors only. For example, Germany includes 'specialists in general medicine' in its figures for GPs and the USA includes physicians who practice in the fields of 'family medicine, general practice, internal medicine, obstetrics, gynaecology and paediatrics' (see OECD, 2009a for further details). However, a recent overview of the availability of GPs across seven countries (Germany, USA, Italy, Spain, UK, New Zealand and Ireland) found that Ireland had the lowest number of GPs per 1,000 population in 2005 (Competition Authority, 2009).

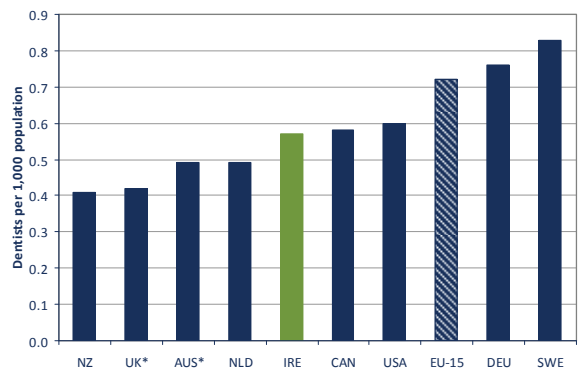
population is substantially higher. Examining the composition of the Irish and OECD figures would suggest that the Irish figures would need to be adjusted downwards due to the inclusion of non-practising professionals (although by what proportion is not clear). This would imply that the number of physicians and dentists per 1,000 population in Ireland is below average, while the number of pharmacists and nurses per 1,000 population is above average.

**FIGURE 13.2**  
Physicians per 1,000 Population, 2006



*Note:* In general, the figures exclude non-practising physicians, retired physicians and physicians working abroad and include foreign-born physicians. However, the figures for Canada, Ireland, Netherlands and New Zealand include non-practising physicians and those for the Netherlands also include retired physicians.

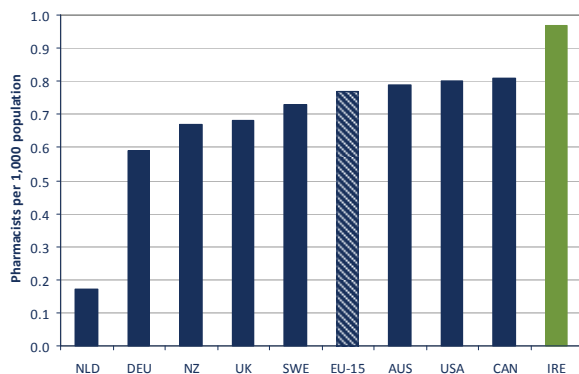
**FIGURE 13.3**  
Dentists per 1,000 Population, 2006



*Notes:* In general, the figures exclude non-practising dentists, retired dentists and dentists working abroad and include foreign-born dentists. However, the figures for Ireland and the Netherlands include non-practising dentists, while those for Ireland also include dentists working abroad.

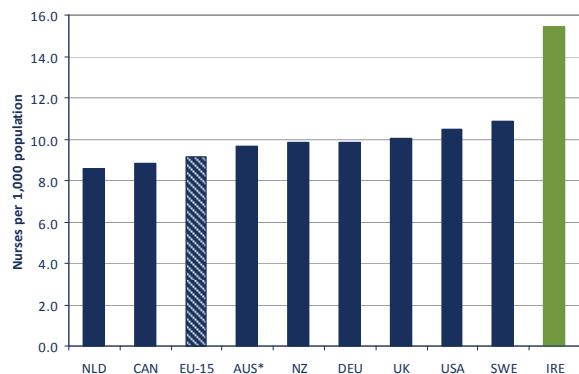
\* Figure for AUS is 2005 and for the UK is 2007.

**FIGURE 13.4**  
Pharmacists per 1,000 Population, 2006



*Note:* In general, the figures exclude non-practising pharmacists and pharmacists working abroad and include both retail (community) as well as hospital pharmacists. However, the figures for Australia and Sweden exclude hospital pharmacists, while those for Ireland include non-practising pharmacists. The figures for the Netherlands include only pharmacists working in public facilities.

**FIGURE 13.5**  
Nurses per 1,000 Population, 2006



*Notes:* In general, the figures exclude non-practising and retired nurses and include midwives. However, Canada, Germany and New Zealand exclude midwives, while the Netherlands, New Zealand and the USA include non-practising nurses. While the figures for Ireland include 'active' registered nurses, it is not clear what proportion of those that state they are 'active' are actually practising.

\* Figure for AUS is 2005.

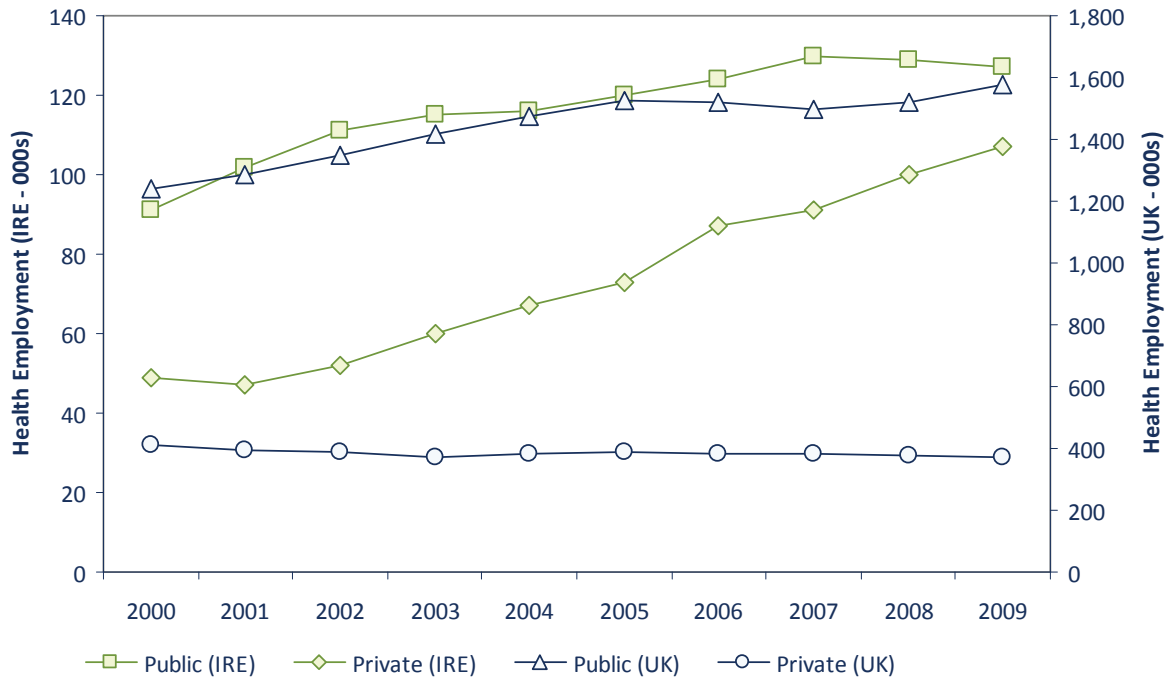
*Note:* Due to differences in data collection methods, sources and definitions, OECD comparisons must be treated with caution. See OECD (2009a) for further details on the exact data sources and definitions for each of the countries above.

*Source:* OECD, 2009a

### 13.2.2.2 UK/England

Data from the UK (which are presented in Figure 13.6) suggest that Irish health employment (both public and private and in particular private) has been increasing faster than that in the UK. For example, over the period 2000-2006, public health employment increased by 36.8 per cent in Ireland and 22.8 per cent in the UK. However, over the period 2007-2009, Irish public health employment fell by 2.0 per cent, while UK public health employment increased by 5.5 per cent. The most striking difference between Ireland and the UK concerns trends in private health employment; Irish private health employment increased by 78.5 per cent over the period 2000-2006 (and has continued to increase since 2007), while UK private health employment fell by 6.8 per cent between 2000 and 2006 (and has continued to fall). Comparing the composition of Irish public health employment with that of the UK/England is difficult, not least because the category definitions are not standardised across the two countries. However, the data in Table A6.7 would suggest that the proportion of total public health employment accounted for by nursing staff is slightly higher in Ireland than in England.

**FIGURE 13.6**  
Public and Private Health Employment (000s), 2000-2009



Notes: For Ireland, all data refer to end of December.

The UK figures for public health refer to all those employed in 'health and social work'.

As per Table 13.3, from March 2007, a change in methodology resulted in the inclusion of certain posts and grades not previously counted, as well as agencies subsumed into the HSE (CSO, 2009; DoHC, personal communication; 30 June 2010). For that reason, it is not accurate to make a direct comparison between pre- and post-2007 figures.

Sources: UK: ONS (2005); ONS (2009); Jenkins(2010)

Ireland: DoHC, 2009; HSE, 2010b; CSO, various; CSO Database Direct ([www.cso.ie/px](http://www.cso.ie/px)) [last accessed 27 June 2010]; HSE, personal communication [02 July 2010]



### 13.3 LEVEL AND COMPOSITION OF PAY IN THE PUBLIC HEALTH SERVICE

#### 13.3.1 Ireland

In terms of expenditure, in 2009 the public health sector pay bill amounted to €7.5bn. Over the period 2000-2006 (2007-2009), expenditure on pay in the public health service has increased by 67.1 (4.5) per cent in real terms, with general public expenditure on pay increasing by 52.0 (4.8) per cent over the same period (see Table 13.3). Health accounts for approximately 41 per cent of the public pay and pensions bill and this proportion has increased slightly by just over three percentage points since 2000 (Department of Finance, 2009). The proportion of total pay costs accounted for by the acute hospital (NHO) and Primary, Community and Continuing Care (PCCC) directorates has remained relatively stable at approximately 50 per cent and 40 per cent respectively over the period 2006-2009 (see Table 13.4).

**TABLE 13.3**  
Public Health Service Expenditure on Pay, €m, 2000-2009

	Health Pay	Total Pay	% Health
2000	3,265	8,632	37.8
2001	4,026	10,186	39.5
2002	4,643	11,489	40.4
2003	5,217	12,773	40.8
2004	5,603	13,746	40.8
2005	6,249	14,973	41.7
2006	6,746	16,218	41.6
2007	7,229	17,600	41.1
2008	7,609	18,753	40.8
2009	7,514	18,333	41.0
<b>% Change 00-06</b>	<b>67.1</b>	<b>52.0</b>	
<b>% Change 07-09</b>	<b>4.5</b>	<b>4.8</b>	

Notes: % change refers to real % change over the period 2000-2009.

To be consistent with the way the information is presented in Tables 13.1 and 13.2, % change in pay is also calculated for the period 2000-2006 and 2007-2009.

Sources: Department of Finance, 2005, 2007, 2009

**TABLE 13.4**  
Pay Expenditure by HSE Directorate, €m, 2006-2009

	NHO	PCCC	Corporate and Shared Services	Total
2006	3,224.3	2,623.4	480.7	<b>6,328.2</b>
	(51.0)	(41.5)	(7.6)	<b>(100)</b>
2007	3,544.5	2,896.6	440.1	<b>6,881.4</b>
	(51.5)	(42.1)	(6.4)	<b>(100)</b>
2008	3,673.0	3,020.5	552.1	<b>7,245.7</b>
	(50.7)	(41.7)	(7.6)	<b>(100)</b>
2009	3,773.6	3,021.3	781.5	<b>7,576.4</b>
	(49.8)	(39.9)	(10.3)	<b>(100)</b>
<b>% Change 07-09</b>	<b>2.1</b>	<b>0.1</b>	<b>70.4</b>	<b>5.6</b>

Notes: % of the total pay bill is presented in parentheses.

Totals are slightly different to those presented in Table 13.3 due to different data source (HSE versus Department of Finance). Department of Finance figures include all health pay, i.e. including staff of the Department of Health and Children and Office for Minister of Children.

HSE Expenditure on Pay is not available prior to 2006.

To be consistent with the way the information is presented in Tables 13.1 and 13.2, % change in pay is calculated for the period 2007-2009.

As noted in Chapter 1, pension costs are included in the pay costs of the corporate and shared services directorate.

Sources: HSE, personal communications [04 November 2009; 17 February 2010]

Looking in more detail at the composition of pay expenditure, in 2009 the pay bill for medical/dental and nursing staff amounted to approximately 50 per cent of the total public health pay bill (see Table 11.4 of Chapter 11). While this group accounted for 41.6 per cent of WTEs (Table 11.5), we would expect such professionals to be paid at higher rates due to job responsibilities, educational qualifications, etc.<sup>6</sup>

<sup>6</sup> Prior to 2007, comparable information at this level of detail is available only for the statutory component of pay expenditure.

As illustrated in Table 13.5, approximately 16 per cent of the public health bill in 2008 was accounted for by non-basic and non-PRSI components of pay, with overtime, on-call, allowances, weekend and night duty payments accounting for 13.8 per cent of the total pay bill. These proportions vary substantially across the different staff categories, with 95.5 per cent of the pay of management/administration staff accounted for by basic and PRSI, in contrast to only 74.9 per cent for medical and dental staff. In addition, 17.1 per cent of pay for medical/dental staff and 9.8 per cent of the pay of maintenance/technical staff is accounted for by overtime payments. In contrast, only 3.1 per cent of the pay of nurses is accounted for by overtime payments, less than the average across the sector of 4.8 per cent. As described in greater detail in Section 13.5, the nature of the working day/week for nurses explains the low proportion of pay expenditure for nursing staff that is accounted for by overtime payments.

**TABLE 13.5**  
Components of Public Health Pay Bill by Staff Category (% of the total), 2008

	Basic	PRSI	Over-time	On-Call	Allow-ances	Week-end	Night Duty	Locum	Other	Total
Management/ Administration	88.7	6.8	0.9	0.1	1.5	0.7	0.2	0.7	0.4	100
Medical/Dental	67.1	7.8	17.1	2.3	3.3	0.3	0.1	1.1	1.0	100
Nursing	73.5	6.8	3.1	0.5	3.5	6.9	3.3	2.0	0.6	100
Paramedical	82.3	7.6	0.6	7.0	0.7	0.6	0.1	0.5	0.6	100
Support Services	74.8	8.7	4.2	0.1	2.1	7.1	1.5	0.9	0.7	100
Maintenance/ Technical	73.5	8.6	9.8	1.7	4.7	0.6	0.1	0.4	0.7	100
Superannuation – Pensions	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
Superannuation – Gratuities	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
<b>Total</b>	<b>77.4</b>	<b>6.9</b>	<b>4.8</b>	<b>1.4</b>	<b>2.4</b>	<b>3.8</b>	<b>1.4</b>	<b>1.2</b>	<b>0.6</b>	<b>100</b>

Source: Calculated from HSE, personal communication [04 September 2009]

## 13.3.2 International Comparisons

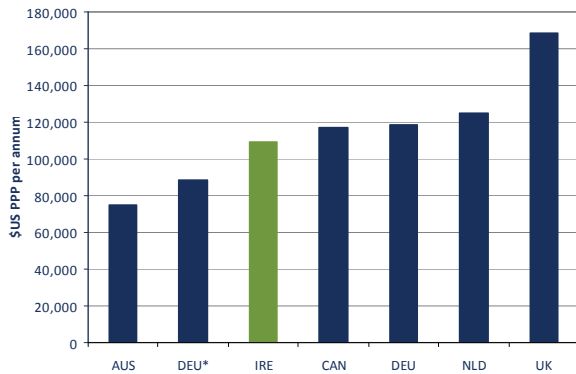
### 13.3.2.1 OECD

As with the comparisons of the numbers of health professionals, comparisons using OECD data on the remuneration of health professionals must be treated with caution. For pay in particular, the range of countries for which comparable data are available is smaller. Nonetheless, Figures 13.7 to 13.9 present data on the remuneration levels of GPs, specialists and nurses for our eight comparator countries and Ireland in 2006.<sup>7</sup> The data presented in Figure 13.7 suggest that the remuneration of Irish GPs is not substantially different to that in other countries. However, the Irish figures include only that portion of income that is derived from the GMS (medical card) contract; additional income from private patients (who constitute 70 per cent of the Irish population) is not included. The same is true of specialists, where Irish levels of remuneration appear to be in line with other countries, but Irish figures exclude income from private practice, as well as overtime and on-call payments. While the number of comparator countries is limited, the data suggest that the remuneration of nurses is not out of line with other countries (although the Irish figures once again do not include overtime payments).

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<sup>7</sup> The OECD do not publish data on the remuneration of dentists.

**FIGURE 13.7**  
GP Remuneration (Self-Employed GPs, unless otherwise stated), 2006

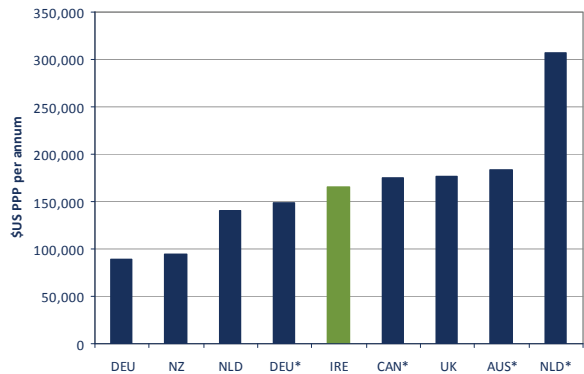


*Notes:* In general, the figures include bonus payments, overtime payments, etc. For salaried GPs, income from private practice is included, while for self-employed GPs, practice expenses are deducted and any income from salary is also included. However, the figures for Ireland refer only to payments to GPs for services provided under GMS contracts, i.e. income from private patients is not included.

Data was not available for all nine countries, nor for the full set of EU-15 countries. Therefore, the EU-15 average is not presented.

\* Salaried

**FIGURE 13.8**  
Specialist Remuneration (Salaried Specialists, unless otherwise stated), 2006

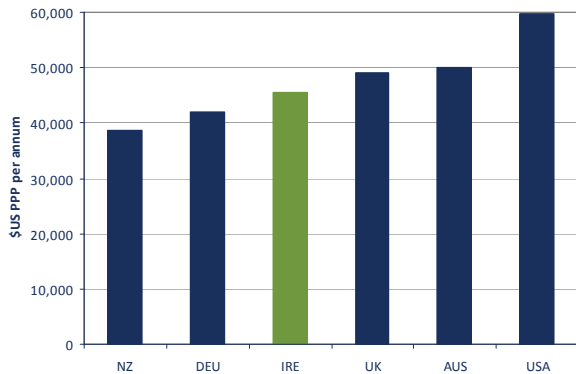


*Notes:* In general, the figures include bonus payments, overtime payments, etc. For salaried specialists, income from private practice is included, while for self-employed specialists, practice expenses are deducted and any income from salary is also included. However, the figures for Ireland refer only to payments to specialists under their public contract (for services provided in public hospitals) and the majority of specialists engage in private practice. In addition, the Irish figures exclude emergency call-out and on-call payments. Surprisingly, the Netherlands figures exclude overtime and bonus payments.

Data was not available for all nine countries, nor for the full set of EU-15 countries. Therefore, the EU-15 average is not presented.

\* Self-employed

**FIGURE 13.9**  
Nurse Remuneration (Salaried Nurses), 2006



*Notes:* In general, the figures include bonus payments, overtime payments, etc. Nursing aids, assistants, nurses in training, midwives and nurse managers are not regarded as nurses for the purposes of the compilation of these figures. The Irish figures do not include overtime payments.

Data was not available for all nine countries, nor for the full set of EU-15 countries. Therefore, the EU-15 average is not presented.

*Note:* Due to differences in data collection methods, sources and definitions, OECD comparisons must be treated with caution. See OECD (2009a) for further details on the exact data sources and definitions for each of the countries above.

*Source:* OECD, 2009a

### 13.3.2.2 UK (England and Northern Ireland)

In part due to the difficulties in comparing pay across numerous countries with differing job descriptions, data sources, etc., we concentrate here on a more detailed comparison with the UK. Table 13.6 compares pay scales between Ireland and the UK (England and Northern Ireland) for three professional categories of employee, namely, staff nurse, senior physiotherapist and consultant.<sup>8</sup> While the information refers to basic salary scales, it is evident that Irish basic rates of pay are generally higher than those pertaining in the UK (even when adjusted for differences in purchasing power between the two countries) and particularly for medical consultants.<sup>9</sup> However, accurate comparison of the remuneration of professionals across the two jurisdictions requires an assessment of eligibility for additional payments (overtime, on-call allowances, etc.) (see Section 13.5).

**TABLE 13.6**  
Basic Salary Scales, Ireland and UK, 2010 (€, £ and € PPP)

	Staff Nurse	Senior Physiotherapist	Consultant <sup>a</sup>
Ireland (€)	30,234 – 31,710 – 33,189 – 34,666 – 36,137 – 37,408 – 38,683 – 39,952 – 41,222 – 42,469 – 43,800 (Long Service Increment after 3 yrs on max)	50,134 – 51,224 – 52,348 – 53,463 – 54,578 – 55,750 – 56,987 – 58,220 – 59,208	Type A: 184,455 – 187,133 – 189,813 – 192,492 Type B: 173,620 – 175,931 – 176,000 – 176,000
UK (£)	Pay Band 5: 21,176 – 21,798 – 22,663 – 23,563 – 24,554 – 25,472 – 26,483 – 27,534	Pay Band 7: 30,460 – 31,454 – 32,573 – 34,189 – 35,184 – 36,303 – 37,545 – 38,851 – 40,157	74,504 – 76,837 – 79,170 – 81,502 – 83,829 – 89,270 – 94,911 – 100,446
UK (€ PPP) <sup>b</sup>	Pay Band 5: 29,411 – 30,275 – 31,476 – 32,726 – 34,103 – 35,378 – 36,782 – 38,242	Pay Band 7: 42,306 – 43,686 – 45,240 – 47,485 – 48,867 – 50,421 – 52,146 – 53,960 – 55,774	103,478 – 106,718 – 109,958 – 113,197 – 116,429 – 123,986 – 131,821 – 139,508

**Notes:** Pay bands and points (as well as working terms and conditions) for UK staff nurse and senior physiotherapists are detailed in Agenda for Change (AfC). AfC applies to all staff employed directly by NHS organisations in England, Scotland, Wales and Northern Ireland, except very senior managers and staff within the remit of the Doctors' and Dentists' Review Body. Staff are placed in one of nine pay bands on the basis of their knowledge, responsibility skills and effort needed for the job rather than on the basis of their job title. The assessment of each post using the Job Evaluation Scheme (JES) determines the correct pay band for each post and so the correct basic pay. Within each pay band, there are a number of pay points. As staff successfully develop their skills and knowledge they progress in annual increments up to the maximum of their pay band. See Section 13.5 for further discussion.

<sup>a</sup> Consultants: Irish data refer to new entrants only. There is a different pay scale for consultants transferring from the old 1997 consultant contract (ranging from €184,139 to €196,553 for Type A contracts, from €176,000 to €187,623 for Type B contracts and €158,997 to €168,266 for Type B\* contracts, which is closed to new entrants).

<sup>b</sup> The PPP rate at March 2010 was €1=£0.72.

**Sources:** Ireland: DoHC(2010)  
UK: NHS Employers (2010a; b)  
PPP: OECD(2010)

Table 13.7 outlines basic pay and earnings for a sample of employees across the National Health Service (NHS) in England. The proportion of total earnings accounted for by additional payments<sup>10</sup> for NHS England employees varies widely by group. In 2009, with the exception of ambulance staff, 'additional payments' account for between 2.8 per cent and 16.4 per cent of total earnings for non-medical

<sup>8</sup> These three groups were chosen partly because they represent large numbers of health sector staff across medical, nursing and therapy grades and also as the categories were most similar in terms of job descriptions, skills, etc., thus enabling more accurate comparisons between the NHS and HSE (see Section 13.5 for further details).

<sup>9</sup> In contrast to exchange rates, purchasing power parities (PPPs) are conversion rates that are both currency converters and price deflators (OECD, 2006).

<sup>10</sup> That is, hours related pay, overtime, occupation payments, location payments and other payments including redundancy pay or payment of notice periods.

occupational groups.<sup>11</sup> The proportion accounted for by 'additional payments' for medical staff groups is however, far higher. In particular, such payments account for approximately 33 per cent of total earnings for the junior doctor categories. While difficult to compare with the information presented in Table 13.5, the data suggest that for example, a higher proportion of the pay of nurses in Ireland is accounted for by additional payments than in the UK (see also Section 13.5.3 for a discussion of the role of additional payments in accounting for the differential in costs for staff nurses between Ireland and the UK).

**TABLE 13.7**  
Basic Pay and Earnings NHS (England), 2009

	Median Full Time Equivalent 'Basic Salary' as a Proportion of Total Earnings % <sup>a</sup>	Median Full Time Equivalent 'Additional Payments' as a Proportion of Total Earnings % <sup>b</sup>	Median Full Time Equivalent Total Earnings	Average FTE in Sample <sup>c</sup>
<b>Broad Non-Medical Occupational Groups</b>				
Administration and estates staff	90.6	9.4	100	241,129
Healthcare Assistants and other support staff	83.6	16.4	100	102,740
Nursing, midwifery and health visiting staff	85.1	14.9	100	352,682
Nursing, midwifery and health visiting learners <sup>d</sup>	97.2	2.8	100	1,909
Scientific, therapeutic and technical staff	90.3	9.7	100	105,614
Healthcare Scientists	89.9	10.1	100	37,928
<b>Qualified Ambulance Staff<sup>e</sup></b>				
London	61.7	38.3	100	2,392
Non-London	76.1	23.9	100	13,348
<b>Unqualified Ambulance Staff<sup>e</sup></b>				
London	71.4	28.6	100	418
Non-London	81.3	18.7	100	5,520
<b>Medical Staff Groups</b>				
Foundation Yr 1 / House Officer	71.2	28.8	100	5,499
Foundation Yr 2 / Senior House Officer	66.6	33.4	100	6,620
Registrar Group	66.7	33.3	100	27,226
Consultants (Old Contract)	86.1	13.9	100	1,470
Consultants (New Contract)	79.4	20.6	100	29,804
Associate Specialist	93.5	6.5	100	3,021
Staff Grade	94.4	5.6	100	2,502
Specialty Doctors	91.0	9.0	100	2,330

*Notes:*

<sup>a</sup> The median basic salary is calculated by ranking individuals' FTE basic pay and taking the midpoint. It is considered a more robust indicator of 'typical' pay than the mean.

<sup>b</sup> Calculated as median basic salary, but for all earnings. This includes basic salary, plus hours related pay, overtime, occupation payments, location payments and other payments including redundancy pay or payment of notice periods.

<sup>c</sup> This is the average monthly FTE used in the calculation for the period, to give an indication of sample size.

<sup>d</sup> This only includes learners who are on Agenda for Change (AfC) terms and conditions. A proportion of this staff group is not on AfC pay scales and bursaries paid to nurse learners are not included within the data.

<sup>e</sup> When earnings estimates were first published, London Ambulance staff were over-represented in the sample. To eliminate potential bias in an overall 'ambulance staff' figure, figures for London and elsewhere were presented separately. This split remains now for ease of comparison over time.

These figures represent payments made using the Electronic Staff Record to NHS Staff. Broad Non-Medical Occupational Groups – those who are on AfC pay scales.

Medical Staff Groups – does not include, for example, elements of pay for clinical staff which are paid to the individual by universities, or other non-NHS organisations providing NHS care.

Figures based on data from all NHS organisations which are using Electronic Staff Record (Two Foundation Trusts have not taken up Electronic Staff Record).

*Source:* Adapted from NHS Information Centre (2009)

<sup>11</sup> Under Agenda for Change (see Section 13.5), there were separate provisions for payments for 'unsocial hours' for ambulance staff which may account for the high proportion of 'additional payments' for this category.

## 13.4 NEW INITIATIVES IN RELATION TO PUBLIC HEALTH EMPLOYMENT AND PAY IN IRELAND

### 13.4.1 Employment Control Framework

In 2006, it was decided that 'robust and effective employment control systems' needed to be put in place throughout the HSE to manage employment levels effectively. To this end the Employment Control Framework was introduced. The 2006 framework had a number of key objectives: the HSE must ensure that any additional employment is directly linked with approved and funded service developments and activity levels; priority is afforded to front line services; and staffing resources must be deployed within the HSE to maximum effect (HSE, 2006a). The HSE Performance Management and Management Information unit (PPMI) formerly known as the National Employment Monitoring Unit (NEMU) is responsible for the collection of the census of public health service employment and provides direction to internal HSE units and voluntary hospitals/agencies on the operation of the framework (although this process is due to change over the course of 2010).

Approved employment ceilings, which encompass the HSE and other public sector voluntary health organisations (voluntary organisations correspond to those funded under Sections 38 and 39 of the Health Act 2004), are issued annually. Using monthly employment monitoring reports and personnel census reports submitted to the PPMI and each of the Assistant National Directors of HR in the four regions monitor employment ceilings and compliance. Increases in employment levels only arise to deliver Government/Ministerial approved new service developments (e.g. National Cancer Control Programme, Mental Health Services and Disability Services). The Joint Employment Control Monitoring Group (HSE, Department of Finance and Department of Health and Children) monitors adherence to the approved ceilings and the conditions attached.

The current Employment Control Framework is part of a wider moratorium on recruitment and promotions in the public service that was announced in March 2009 and which is in effect until the end of 2010 (HSE, 2009a).<sup>12</sup> The general moratorium on recruitment, promotion and the payment of acting up allowances does not apply, however, to the following grades of public health employment: medical consultants, speech and language therapists, physiotherapists, occupational therapists, clinical psychologists, behavioural therapists, counsellors (mental health and disability services), social workers and emergency medical technicians.<sup>13,14</sup> Such grades are excluded to ensure that key services are maintained in certain areas (e.g., children at risk, older persons, disability). In addition, the HSE also has the capacity to fill exceptions from the moratorium provided it achieves the overall target reductions (DoHC, personal communication; 30 June 2010).

The current moratorium requires the public health service to use its human resources more efficiently through redeployment/reassignment of staff. Beginning in March 2009, the health services have been asked to reduce numbers employed by 6,000 WTEs by the end of 2012. In 2009, employment levels fell by 1,300 WTEs and a further reduction of 1,520 WTEs is required by the end of 2010. The HSE is operating within an initial overall employment ceiling of 110,355 WTEs for 2010 (HSE, 2010c).<sup>15,16,17</sup> The HSE is devolving the operation of the Employment Control Framework to regional level in 2010, as well as setting out quarterly targets for

<sup>12</sup> In the supplementary budget in April 2009, the Minister for Finance announced an 'Incentivised Scheme of Early Retirement (ISER)'. The purpose of the ISER in the public health sector is to facilitate a permanent, structural reduction in the numbers of staff employed along with an associated restructuring of organisation and operations, in as timely a manner as possible and in line with the 2009 Employment Control Framework for the Public Health Sector. The ISER does not apply to grades exempted from the moratorium on recruitment and promotions under the 2009 Employment Control Framework for the Public Health Sector, i.e. Medical Consultants, Speech and Language Therapists, Occupational Therapists, Physiotherapists, Clinical Psychologists, Behavioural Therapists, Counsellors (Mental Health and Disability Services), Social Workers and Emergency Medical Technicians (HSE, 2010c). In addition, the Minister announced the introduction of the 'Special Incentive Career Break Scheme', applicable only in 2009. Those availing of this scheme must take a career break (without pay) of three years, for which they will receive an incentive payment of a third of gross basic pay up to a maximum of €12,500 per annum (HSE, 2009b). Finally, the 'Shorter Working Year' scheme, also announced in the supplementary budget of April 2009, provides for special unpaid leave for a period of 2, 4, 6, 8, 10 or 13 consecutive weeks. The leave may be taken as one continuous period, or as a maximum of 3 separate periods, each consisting of not less than 2 weeks and not exceeding 13 weeks in total (HSE, 2009c). The HSE suspended all three schemes in June 2009 due to industrial relations problems but continued to accept applications up to the closing date of October 2009. It was announced in January 2010 that the HSE requested the DoHC to lift the suspension on the ISER (Dáil Éireann, 2010).

<sup>13</sup> Acting up allowances are traditionally paid to staff who take on additional duties, although it is not clear how eligibility for such allowances is determined. The HSE acknowledge that '*a review of long-term acting up arrangements/associated payments has commenced and the outcome may provide a further opportunity to streamline the existing situation where widespread acting up arrangements are currently in place*' (HSE, 2009a; 3). However, where a clear clinical risk is identified by the non-renewal/sanction of a paid acting-up arrangement/associated payment, the service manager will have the authority to resolve the matter in line with emergency provisions on agency staff and overtime.

<sup>14</sup> Any new post of hospital consultant will generally be created by the suppression of two non-consultant hospital doctor posts (some variation may be allowed to this ratio to meet particular local circumstances) (HSE, 2010c).

<sup>15</sup> This does not include 265 new approved and funded service developments under Children and Families, as per the implementation of the Ryan Report on Child Abuse (HSE, 2010c).

<sup>16</sup> While agency staff are not included in the employment ceiling, such staff '*can only be made use of in exceptional circumstances to provide emergency relief for medical/professional staff providing essential frontline health, welfare and protection services*' (HSE, 2010c; 7).

<sup>17</sup> As of May 2010, 109,555 WTEs were employed in the public health service (HSE, personal communication; 02 July 2010).



reductions in employment (to reflect the fact that the target is not just a year-end target but one that must be achieved throughout the year) (HSE, 2010c).<sup>18</sup>

### 13.4.2 Public Service Pay Cuts

In terms of pay, all public health service staff are subject to the general public service pay cut which was announced as part of Budget 2010 in December 2009 and which came into effect on 1 January 2010.<sup>19</sup> In addition, all public health service staff are subject to the public service pension-related deduction (PRD), which was announced as part of Budget 2009 and amended in the Supplementary Budget of April 2009.<sup>20</sup>

### 13.4.3 Public Sector Agreement 2010-2014

In April 2010, a draft Public Sector Agreement covering the period up to 2014 was produced. Apart from proposals in relation to a continuing moratorium on recruitment, redeployment of staff, improved performance monitoring (including merit-based, competitive promotion policies) and a commitment to no further pay cuts for the duration of the agreement, the most significant component of the draft agreement in relation to public health employment concerns the definition of the core working day/week. Section 2.2 (a) of the agreement states that the required reorganisation will focus on *'providing, across all settings, planned services over an extended (08:00 to 20:00) day on a Monday to Friday basis and/or five over seven day basis, while also providing emergency services on a 24-hour 7-day basis, thereby reducing the staffing and other resources required at nights and weekends'* (Department of Finance, 2010b; 14). If implemented, the agreement has the potential to affect significant change in the terms and conditions of public health employment and consequently labour costs.

The proposal in relation to the extended working day and week is not listed for immediate implementation; there will be a consultation/adjudication process whereby the proposals will be discussed with trade union representatives at local level based on an assessment of the impact of the proposals on employee numbers, rosters, earnings, redeployment, re-skilling and family circumstances. On 15 June 2010, the Public Services Committee of the Irish Congress of Trade Unions (ICTU) formally ratified the agreement.

<sup>18</sup> Exceptions are the filling of management/administration posts, as well as 'senior level posts', where the filling of posts in this category still requires prior sanction from the Department of Health and Children and the Department of Finance (HSE, 2010c).

<sup>19</sup> Public sector salaries were reduced from 1 January 2010 as follows for those earning up to €125,000:

- 5 per cent on the first €30,000 of earnings
- 7.5 per cent on the next €40,000 of earnings
- 10 per cent on the next €50,000 of earnings.

For those earning over €125,000, the relevant reductions are:

- 8 per cent on earnings between €125,000 and €165,000
- 12.5 per cent on earnings between €165,000 and €200,000
- 15 per cent on earnings above €200,000 (Department of Finance, 2010a).

<sup>20</sup> On average, the PRD amounted to an effective pay cut of 7 per cent (Department of Finance, 2010a).

### 13.4.4 Current Proposals in Relation to Working Terms and Conditions in the Public Health Service

#### 13.4.4.1 Overview

In the absence of the implementation of the Public Sector Agreement, we discuss here a number of initiatives that are currently in place in relation to working terms and conditions within the public health service. The terms and conditions of employment that currently apply to employees of the HSE are notable for their complexity. In particular, arrangements in relation to allowances (e.g. premium payments, on-call payments and qualification allowances), annual leave entitlements and salary scales all vary by grade and length of service. Any analysis of the terms and conditions of HSE employees must be undertaken on a group by group basis to provide an accurate picture of the complexity involved and this is done for three professional groups in Section 13.5.

Much of this complexity can be attributed to the historic local incremental agreements between employers (particularly individual hospitals) and employee representatives over the years. There have however been recent attempts to rectify this issue. It is now no longer possible to negotiate locally binding agreements on terms and conditions with individual hospitals and all agreements are made on a nationally binding basis. Some of these national agreements include the introduction of an extended working day and standardised terms and conditions (working hours and annual leave) for particular grades.

#### 13.4.4.2 Extended Working Day/Week

The need to match working patterns to service needs in the health sector was outlined in *Towards 2016* in June 2006. It stated that *'while the standard working week of many health staff will remain unchanged it is accepted that there is a need to move from the traditional 9-5 'office hours' based service to an extended span of the working day across all disciplines in certain areas. These needs can be met by a combination of existing staff opting to work new arrangements, flexible working and the recruitment of new entrants on the basis of the extended working day'* (Department of the Taoiseach, 2006; 122).

Accordingly, agreement was reached between the HSE and trade unions on arrangements to facilitate the introduction of an extended working day/week. The agreement applies to new entrants, staff appointed to promotional posts and staff on renewed temporary contracts, on or after 16 December 2008. Existing employees may participate in the arrangement on a voluntary basis (HSE, 2009d). This arrangement does not affect pay or other terms and conditions of employment.<sup>21</sup>

#### 13.4.4.3 Standardised Terms and Conditions

In March 2009, the HSE reached agreement with IMPACT, the Medical Laboratory Scientists Association and SIPTU Health Professional Branch on the standardisation of terms and conditions for employment for various staff grades in the HSE. These grades are: clerical/admin grades III to VIII and all senior managers above grade VIII; therapy grades (basic, senior and manager); medical scientist grades (basic, senior and manager); and radiographer grades (basic, senior and manager) (HSE, 2009e).

The standardised terms and conditions relating to working hours and annual leave apply to staff recruited to the HSE since 16 December 2008 and those who transferred to the HSE on establishment day and who are promoted/re-graded on or after the 16 December 2008.<sup>22</sup> Those excluded from the new standardised terms and conditions include staff who transferred to the HSE on establishment day (01 January 2005) and who have remained in the same grade; staff who transferred to the HSE on establishment day and who were promoted/re-graded before the 16 December 2008 and staff employed in HSE-funded agencies and voluntary hospitals.

#### 13.4.4.4 Job Evaluation Scheme

A new job evaluation scheme for employees in clerical/administrative grades was announced in 2008. It is a systematic process to assess whether a particular job's grade is properly matched to its duties and responsibility, i.e. it is designed to measure whether or not a post is correctly graded. Employees in selected clerical/administrative grades can apply to have their posts evaluated. An interview takes place between evaluators and the post holder with the aim of scoring the post under specific criteria. The result may or may not be to upgrade the post (HSE, 2008a).

<sup>21</sup> In March 2006, the HSE reached agreement with SIPTU on behalf of Radiographers and Radiation Therapists on extending their working day. The contracted working day changed from 09:00 to 17:00 to 08:00 to 18:00 regime. This agreement encompassed an allowance of €1,800 payable to those affected by the agreement (HSE, 2006b).

<sup>22</sup> In the original circular it was stated that the standardised terms and conditions would apply to staff recruited to the HSE since its establishment in 2005 (HSE, 2009e). In October 2009, in an additional circular it was clarified that the standardised terms and conditions did not apply to new entrants who commenced employment during the period 01 January 2005 and 15 December 2008, unless their status changed after 16 December 2008 (i.e. if they were transferred, promoted or up graded) (HSE, 2009f). Any increase in annual leave took effect for the selected staff from 01 April 2009. An employee whose annual leave was to be reduced under the terms of these agreements was allowed retain his/her existing entitlement until 2010, following which their leave will be reduced by 1 day per year until their leave corresponds with the standardised entitlement. All staff covered under the Agreements will work 35 hours per week effective from 01 March 2010.

### 13.4.5 Discussion

Developments such as the extended working/day week, standardised terms and conditions and job evaluation (provided it does not lead to 'grade drift') are welcome as they simplify the system and add transparency. However, their effectiveness is constrained by the fact that they only apply to certain selected groups of employees and/or new entrants. In most cases existing employee participation is voluntary. In addition, the moratorium on recruitment and promotions, in place since March 2009, has meant that few additional employees will have been obliged to work under the new terms and conditions in the past year. This means that it will take a very significant amount of time for standardised terms and conditions to apply to a significant proportion of all employees in the public health service. However, the draft Public Service Agreement has the potential to reduce the public health pay bill significantly if its proposals on an extended working day/week are implemented and its recent acceptance by the Public Services Committee of ICTU is a significant step forward.

## 13.5 DETAILED COMPARISON WITH THE UK NHS

### 13.5.1 Overview

In this section, various aspects of the terms and conditions of employment of three HSE employed health professionals are compared to their counterparts employed in the NHS. It is beyond the scope of this review to cover all entitlements and terms and conditions of employment afforded to each grade. Instead, we select particular characteristics to compare across the two systems: salaries; hours of work; premium payments, over-time, on-call and call-out; availability of allowance in the nature of pay; annual leave allowance; superannuation arrangements; and promotional/career structure. The grades selected for analysis are Staff Nurse (NHS: Other 1<sup>st</sup> Level Acute, Elderly and General), Senior Physiotherapist (NHS: Advanced Physiotherapist) and Consultant.

### 13.5.2 UK Agenda for Change

In the UK, a major programme of NHS workforce reform and pay modernisation in the early 2000s introduced three major new contracts and pay system: for general practitioners (GPs), for NHS hospital consultants, and for nurses and other staff (Buchan *et al.*, 2007). As the remuneration of GPs in Ireland and the UK is dealt with in greater detail in Chapters 3 and 6, here we concentrate on nurses, (senior) physiotherapists and hospital consultants.<sup>23</sup> The NHS pay system as a whole has three pay spines: one for staff within the remit of the Doctors' and Dentists' Review Body; one for staff within the extended remit of the Pay Review Body for Nursing and Other Health Professions; and one for other directly employed NHS staff, with the exception of the most senior managers. The Agenda for Change (AfC) introduced

<sup>23</sup> The Appendix to Part 3 also contains a discussion of methods for reimbursing hospital consultants.

new, single pay spines for the second and third of these groups, replacing the large number of separate occupational pay spines previously in existence.

AfC, therefore, applies to all staff employed directly by NHS organisations in England, Scotland, Wales and Northern Ireland – approximately 1.1m individuals (National Audit Office, 2009). Excluded are very senior managers and staff within the remit of the Doctors' and Dentists' Review Body.<sup>24</sup> Supported by the NHS Job Evaluation Scheme (JES) and the Knowledge and Skills Framework, it was designed to

- deliver fair pay for non-medical staff based on the principle of equal pay for work of equal value
- provide better links between pay and career progression using the new NHS Knowledge and Skills framework
- harmonise terms and conditions of service such as annual leave, hours and sick pay and, more recently, for work performed in unsocial hours.<sup>25</sup>

Staff members are placed in one of nine pay bands on the basis of their knowledge, responsibility, skills and effort needed for the job rather than on the basis of their job title. The assessment of each post using the JES determines the relevant pay band for each post and so the correct basic pay. Within each pay band, there are a number of pay points. As staff members successfully develop their skills and knowledge they progress in annual increments up to the maximum of their pay band. At two defined 'gateway points' on each pay band pay progression is based on demonstration of the applied knowledge and skills needed for that job. The key principle behind AfC was to introduce a system that would pay staff on a consistent basis by reference to the work they do, as well as their skills and knowledge (National Audit Office, 2009).

When the AfC was introduced in 2004 several transitional arrangements were put into place to allow for assimilation of all affected staff to the new system. For example, an arrangement was put in place to allow for the assimilation of working hours for those currently working less than 37.5 hours per week. For example, an employee working 35 hours per week at the introduction of the scheme would spend four years working 35 hours, two years working 36 hours and one year working 37 hours before assimilating to 37.5 hours per week. Similar transitional arrangements exist for other terms and conditions, including pay and annual leave. That is, the AfC did not apply only to new or promoted/re-graded staff as does the

<sup>24</sup> The Agenda for Change negotiations resulted in a common final agreement across the four countries of the UK. However, some very minor variations in terms and conditions have been introduced. For example in England, clinical staff in pay bands 5 to 8A inclusive who are in professions where registration with one of the regulatory bodies is mandatory in order to practice, are paid an allowance of up to £38 as a contribution to the payment of their clinical registration fees (NHS Information Centre, personal communication; 14 December 2009).

<sup>25</sup> NHS Employers:  
[www.nhsemployers.org/PayAndContracts/AgendaForChange/Pages/AfC-AtAGlanceRP.aspx](http://www.nhsemployers.org/PayAndContracts/AgendaForChange/Pages/AfC-AtAGlanceRP.aspx) [Last Accessed 02/02/10]

new system for selected grades in Ireland discussed in Section 13.4.4. In addition, the AfC also includes all nursing grades (and nursing staff comprise 35 per cent of staff covered by AfC) (National Audit Office, 2009). AfC also incorporated (or 'bought out') the many supplementary payments and additional allowances that existed previously in order to simplify the new pay system. The previous system of London weighting and fringe allowances was also replaced by a new category of 'high cost area' pay supplement and recruitment and retention premiums were introduced to provide an additional pay option for individual posts or specific groups of posts that were hard to fill (Buchan *et al.*, 2007).

The implementation of the AfC has not been without its problems (in particular, the slower than anticipated implementation of the Knowledge and Skills Framework).<sup>26</sup> In terms of cost, the annual cost of employing staff on AfC in the NHS (England) increased by 36 per cent from 2003-2004 to 2007-2008. It is estimated that 13 per cent of the additional cost was due to growth in employment, with a further 22 per cent due to increases in employers' pension scheme contributions. The remaining 65 per cent reflected higher levels of pay as well as the impact of AfC, although the precise cost due to AfC alone could not be estimated (National Audit Office, 2009).<sup>27</sup> In terms of benefits, AfC now means that it is easier for managers and budget holders to estimate and manage their costs. In addition, there is now a standardised process for determining pay increases for all staff (with the exception of doctors, dentists and senior managers). However, given the relatively recent introduction of AfC, it is too early to evaluate the precise impact of the change, although a recent study has highlighted '*the critical need for evaluation of the cost and impact in order to identify limitations and scope for further improvement*' (Buchan *et al.*, 2007; 26).<sup>28</sup> Notwithstanding the uncertainty over the precise costs and benefits associated with AfC, the process offers a useful case study on experience with implementing large-scale simplification and modernisation of terms and conditions of employment over a relatively short time period.

<sup>26</sup> While Agenda for Change was implemented over a two year period between December 2004 and December 2006, national negotiations on the new system started in 1999 and were carried out by the Department of Health and its counterparts in Scotland, Wales and Northern Ireland, the NHS Confederation (the employers' representative body) and the trade unions. Final agreement was reached in late 2004. By March 2006, the vast majority of staff in England had moved over to the new pay bands (National Audit Office, 2009).

<sup>27</sup> A simulation exercise by the National Audit Office estimates that the pay bill in 2007-2008 was between 0.6 per cent higher and 0.8 lower than it might have been had Agenda for Change not been implemented (National Audit Office, 2009). The House of Commons Health Committee estimated that spending on Agenda for Change in 2004/2005 had exceeded projections by £220m (Buchan *et al.*, 2007).

<sup>28</sup> The Department of Health anticipated that Agenda for Change would result in a 1.1 to 1.5 per cent year-on-year increase in productivity (delivering net savings of approximately £1.3bn over the first five years of Agenda for Change). An evaluation of Agenda for Change has not yet been carried out to assess whether these productivity improvements have been realised (National Audit Office, 2009). The National Audit Office report on Agenda for Change concluded that 'Agenda for Change cannot yet be shown to have enhanced value for money' (National Audit Office, 2009; 8).

### 13.5.3 Nurses and Physiotherapists

Nurses and physiotherapists will be discussed together as both are covered by the same terms and conditions in the UK (i.e. AfC). See Tables A6.8 and A6.9 in the Appendix for the full comparison of salary scales and terms and conditions of employment.

#### 13.5.3.1 HSE – Ireland

As discussed in Section 13.4, there is now a legacy of local agreements existing across grades within the system. In the absence of the implementation of the Public Service Agreement, recent attempts to standardise terms and conditions across grades only apply to specific grades and most importantly only apply to what are defined as new or promoted staff. Progression along the salary scales is in annual increments and there is a long service increment available to nurses who reach the top of their respective scales. Receipt of annual increments is based on length of service and not on performance.

#### 13.5.3.2 NHS – UK

The grades under consideration here are covered by the AfC.

#### 13.5.3.3 Comparison

*Salary:* For staff nurses, basic pay in the HSE is slightly higher than that in the NHS, while it is substantially higher for senior physiotherapists (see Table 13.6 for the full set of PPP comparisons). For example, a new entrant starting out on the first point of the staff nurse salary scale earns a basic salary of £21,176 (€29,411 on a €PPP basis) in England/Northern Ireland and €30,234 in Ireland, while a new entrant to the senior physiotherapist grade earns £30,460 (€42,306) in England/Northern Ireland, in comparison with €50,134 for a comparable new entrant in Ireland. Both systems have a pay bands along which employees progress incrementally on an annual basis. However, under AfC, employees must demonstrate the applied knowledge and skills needed for that job to progress at two points on the pay scale.

*Hours of work:* In Ireland staff nurses work 37.5 hours per week; the majority of those on this grade work a shift system covering 24 hours per day, 365 days per year. Senior physiotherapists work 35 hours per week (09:00–17:00). In the NHS nurses and advanced physiotherapists work 37.5 hours per week with normal working hours of 07:00–19:00 Monday to Friday. Hours worked outside of this are considered to be 'unsocial hours'.

*Additional payments:* In Ireland there is a system of premium payments in place for nurses to compensate them for hours worked at night, on weekends or other 'unsocial hours'. This is paid as a percentage enhancement to basic pay (with the exception of the Saturday payment, which is flat-rate). Overtime payments are also available to those working additional hours. Senior physiotherapists receive a complex series of emergency/on-call duty rates which are outlined in detail in Table A6.9. Under AfC, premium payments (as a percentage of basic salary) are available but at a lower rate than that available to those working in the Irish system. For example, a staff nurse working a night shift hour on a Sunday in Ireland receives a Sunday premium plus a night premium (time x 2.25); an equivalent hour in the UK system would be a Sunday premium only (time x 1.6). Overtime rates for nurses in Ireland are also more generous than those in the NHS; more hours in the HSE are eligible for double time (i.e. the only double time paid under AfC is on public holidays).

In Ireland, there is a specialist qualification allowance and a location allowance available to qualifying nurses and an annual training allowance is available to senior physiotherapists. Under the AfC, recruitment and retention premiums may be made to an individual where market pressures may otherwise prevent the employer from being able to recruit and retain staff. High cost area supplements are also available to employees working in and around London.

*Annual Leave:* The annual leave allowance under AfC is more generous than that in Ireland, ranging from 27 to 33 days compared to 24 to 27 days for nurses in Ireland and 29 days for senior physiotherapists.<sup>29</sup>

#### 13.5.4 Consultants

In both systems contracts are negotiated between consultants and the relevant employer. The majority of consultants have signed up to the newest contracts available in the respective jurisdiction (effective from 2008 in Ireland and 2003 in the UK). However, there is a small proportion of consultants who remain on older contracts; these older contracts will not be discussed here. In both systems all new entrants must sign the new contract.

<sup>29</sup> In Ireland, employees are entitled to nine public holidays per annum, in comparison with eight in the UK.



#### 13.5.4.1 HSE – Ireland

On 28 July 2008 a new consultant contract came into existence in Ireland replacing the 1997 contract. By November 2009, almost 90 per cent of consultants had signed up to the new contract, with approximately 200 remaining on older contracts. Table A6.10 in the Appendix outlines the salary and terms and conditions of the new 2008 consultant contract (excluding Academic Consultants).<sup>30</sup> In Ireland the proportion of allowable private practice is an intrinsic part of the contract (HSE, 2008b).

There are now four types of consultant contract available under the 2008 agreement:

**Type A** – Public-only practice: Contract available to new consultants and to all consultants on 1997 contract.<sup>31</sup>

**Type B** – A minimum of 80 per cent of a consultant's workload will be devoted to treating public patients in public facilities and a maximum of 20 per cent can be devoted to private patients in public hospitals and co-located private hospitals. Contract available to new consultants and to all consultants on 1997 contract<sup>32</sup>;

**Type B\*** – A minimum of 80 per cent of a consultant's workload will be devoted to treating public patients in public facilities and a maximum of 20 per cent can be devoted to private patients in public hospitals, co-located private hospitals and outside public hospitals. Contract available to Category 2 consultants on 1997 contract.

**Type C** – Will only be appointed in exceptional situations and will be entitled to treat private patients off-site, away from the main public hospital campus. Contract available to new consultants.

It had been agreed that consultants who signed the new contract would receive a 5 per cent increase in salary with effect from September 2007 and a further increase, the level of which would depend upon the individual's existing and new contract type. Half of this remaining increase was to be paid from 01 June 2008 and the balance from 01 June 2009. In April 2009, in the context of the Supplementary Budget, the Minister announced that she was prepared to sanction part payment of the new salary scales for consultants who signed up to the new contract. The previously agreed rates would apply from 01 January 2009, but the final phase due from 01 June 2009 was not sanctioned and the Minister also decided not to sanction

<sup>30</sup> There are currently 75 Academic Consultants. Academic Consultant posts are joint appointments between Universities and the HSE or its funded agencies. They are structured to ensure a minimum 50 per cent commitment to the academic institution.

<sup>31</sup> There were two categories of consultant under the 1997 contract. Category 1 contracts restricted private practice to the public hospital(s) in which the consultant was employed. Category 2 contracts allowed for private practice off-site in private hospitals.

<sup>32</sup> It is included in the contract for Type B contract holders that '*servicing consultants whose public to private ratio in 2006 was greater than 20 per cent will be permitted to retain this higher ratio, subject to an overriding maximum ratio of 70:30, and this will endure for the lifetime of the agreement*' (HSE, 2008b; 55).

increased on-call and call-out payments (Dáil Éireann, 2010). Table A6.10 reflects the salary scales published on 01 January 2010 following the public sector salary decreases announced in Budget 2010.

#### 13.5.4.2 NHS – UK

The original proposals for a new consultant contract represented a common UK position. However, different responses to the national framework from consultants within England, Scotland, Wales and Northern Ireland led to variations (Williams *et al.*, 2006). In this discussion we consider England and Northern Ireland only.

The most recent consultant contract in England was introduced in 2003. This contract applies to all consultants first appointed after 31 October 2003, as well as those who have chosen to transfer to it. In 2008, 95 per cent of consultants were on the new contract (Department of Health, 2009). The new consultant contract was implemented in Northern Ireland with effect from 01 April 2004. The new contract was based on that accepted by the profession in England, with the exception of the arrangements for Clinical Excellence Awards (CEAs) and with different backdating arrangements (Williams *et al.*, 2006). By September 2007, 98 per cent of consultants in Northern Ireland were employed under the terms of the new contract (Department of Health, 2009).

A central tenet of the consultant contract across the UK is that of Job Planning. Job planning is based on a partnership approach. The clinical manager prepares a draft job plan, which is then discussed and agreed with the consultant. Job plans list all the NHS duties of the consultant, the number of programmed activities for which the consultant is contracted and paid, the consultant's objectives and agreed supporting resources.<sup>33</sup> A standard full-time Job Plan contains ten programmed activities per week. The Job Plan is reviewed annually.

#### 13.5.4.3 Comparison

*Salary:* It is clear that there are significant differences between both the salary structures and salary levels of consultants across the two systems. The new consultant contract in Ireland should have simplified the salary scales of consultants who signed it. However, unforeseen changes in economic circumstances, as discussed above, have meant that characteristics of the old contract are still influencing what consultants are paid. In England and Northern Ireland the basic salary appears lower than that of consultants in Ireland but it should be noted that CEAs can make a significant difference to some consultants' salaries (see additional payments). A new consultant starting out on the first point of the salary scale (i.e.

<sup>33</sup> A programmed activity is a scheduled period, nominally equivalent to four hours, during which a consultant undertakes Contractual and Consequential Services (NHS, 2009).

not entitled to CEAs in England or Northern Ireland) on a full-time public contract earns a basic salary of £74,504 in England/Northern Ireland and €184,455 (Type A contract) in Ireland. Adjusting for differences in purchasing power parities, the starting salary (in the public sector) for an Irish consultant on a Type A contract is therefore, 75.8 per cent higher than that for an equivalent new entrant in the NHS.<sup>34</sup>

*Hours of work:* Core hours of public work are shorter in Ireland than in the UK (England and Northern Ireland) with Irish consultants working 37 hours (Monday to Friday 08.00 to 20.00) compared to 40 hours (Monday to Friday 07.00 to 19.00) in England and Northern Ireland.

*Additional payments:* there are additional payments on top of basic pay available in both systems. In Ireland, there are premium payments for structured on-site attendance at weekends and public holidays. There are also on-call/call-out payments and emergency call-out payments. Consultants receive a flat annual on-call/call-out payment and for those on more onerous rotas an additional annual payment, which is dependent on the number of call-outs. In the UK, there are premium payments for unsocial hours and the opportunity to work additional programmed activities. There is also an on-call availability supplement, which is an additional percentage payment on top of basic salary which compensates consultants for being on call. Payments are dependent on the frequency of rota commitment and the complexity of the calls.

Various allowances are also available to consultants under certain circumstances. For example, in Ireland a vouched payment of up to €3,000 is available for 'continuing medical education' and allowances are also available to the Masters of maternity hospitals (€53,008) and Clinical Directors (€50,000). In England, an annual London weighting allowance is available and in England and Northern Ireland recruitment and retention premia are payable under certain circumstances. The most significant additional payments available to consultants in the UK are made under the CEA Scheme. Awards under this scheme reward consultants '*who contribute most towards the delivery of safe and high quality care to patients and to the continuous improvement of NHS services including those who do so through their contribution to academic medicine*' (Department of Health, 2003; 3). In 2009, the amount of the awards ranged from Level 1 (£2,957) to Platinum (£75,796).<sup>35</sup> In 2008, 60 per cent of consultants in England received a CEA (ACCEA, 2008). Approximately 22 per cent of all eligible consultants in England received awards in excess of £14,000 and 13.2 per cent received one of the top 5 awards of greater than £35,000 (level 9, bronze, silver, gold or platinum) (ACCEA, 2008).

<sup>34</sup> In contrast to exchange rates, purchasing power parities (PPPs) are conversion rates that are both currency converters and price deflators (OECD, 2006). On a PPP basis, £74,504 was worth €103,478 as of December 2010 (OECD, 2010).

<sup>35</sup> The criteria for the awards vary slightly between England and Northern Ireland but the amount of the payments in both countries is the same.

*Private practice:* In Ireland, each consultant regardless of contract type must work the 37 hours salaried commitment to the public health service.<sup>36</sup> As with the earlier 1997 contract, consultants are limited in the volume of private practice that can be undertaken in public hospitals. For newly-appointed consultants, the ratio of public to private activity must be maintained at 80:20, similar to the 1997 consultant contract.<sup>37</sup> The public/private ratio is implemented via the Clinical Director and subject to audit by the Department of Health and Children. However, initial evidence with the 2008 consultant contract has highlighted compliance issues with some consultants undertaking private practice in excess of their agreed ratio (Committee of Public Accounts, 2009).<sup>38</sup>

In England and Northern Ireland private practice is allowable, but the first additional programmed activity must be offered to the NHS. A consultant could decline an offer of an extra programmed activity and still work privately, but with risk to NHS pay progression for that year. The relationship between private practice and NHS work was clarified in A Code of Conduct for Private Practice: Recommended Standards of Practice for NHS Consultants (Department of Health, 2004). Adherence to this code forms part of the eligibility criteria for CEAs and pay progression (National Audit Office, 2007).

<sup>36</sup> Consultants entitled to private practice may:

1. attend private inpatients in the public or co-located private hospital during this period
2. attend private day cases in the public or co-located private hospital during this period
3. attend private outpatients in private rooms on the public hospital campus or in locations off the public hospital campus outside the 37 hour period with regard to
  - (a) Section 7 (a) of the Contract provides that the Consultant is not obliged to work more than 8 hours in any one day and that this be delivered in a single, continuous episode. This should preclude attendance at private rooms during this scheduled 8-hour period.
  - (b) Section 21 of the Contract provides that Consultants entitled to private practice in locations outside the public hospital campus may engage in such private practice subject to them '*fully discharging their aggregate 37-hour weekly standard commitment as required by the Employer*' (HSE, 2008b; 19).

<sup>37</sup> The ratio for existing consultants may be determined by the public/private mix of their activity in 2006, up to a maximum of 70:30 (see also Section 13.5.4.1).

<sup>38</sup> In March 2010, it was reported that more than 45 per cent of consultants were within 10 per cent of their official ceiling for both private inpatient admissions and day cases (Wall, 2010). In May 2010, it was reported that the HSE has written to over 200 consultants who have exceeded their contracted public-private ratio (Wall *et al.*, 2010).

### 13.5.5 Discussion

Notwithstanding the recent initiative to standardise the terms and conditions of selected grades and the significant proposals in relation to an extended working day/week contained in the draft Public Service Agreement, the majority of HSE staff are covered by historical contracts that were negotiated with the representative associations. In particular, nurses and other clinical staff are not covered by these new terms and conditions. What emerges from the limited review of contracts for the three professional grades undertaken in this paper is the complexity of the contracts in the HSE, with little standardisation in terms and conditions across grades. This contrasts with the situation in the UK, where the 2004 AfC initiative standardised the pay scales and terms and conditions for all staff, except senior NHS managers, doctors and dentists. Significantly, AfC applies to existing staff, as well as new entrants. In terms of sustainability, the standardisation of pay scales and terms and conditions can assist significantly in bringing stability and transparency to the public health pay bill. The draft Public Sector Agreement, if implemented, has the potential, however, to affect significant change in terms of the definition of the core working day and week.

In an attempt to illustrate the implications of the differing salary levels and terms and conditions of employment for the public sector pay bill, we have obtained a sample annual roster for a staff nurse employed by the HSE in 2009. We have applied the information contained in Table A6.8 to undertake a comparison of the difference in earnings under the HSE and NHS systems. Table 13.8 presents the comparisons for a number of representative weeks of 'day shifts', while Table 13.9 presents the comparisons for a representative week of 'night shifts'. For simplicity, the comparison excludes overtime payments, but indicates the contribution that both pay levels and entitlement to additional payments play in accounting for differences in labour costs (for one particular group of staff) between Ireland and the UK.<sup>39</sup>

For a standard day shift week (Type 1: comprised of three weekday shifts of 12.5 hours each), the total earnings (using 2010 pay rates and terms and conditions) amount to €745.60 in Ireland, in comparison with £481.87 in the UK (€669.26 on a PPP basis). For other day shift weeks, the differential is even greater. For example, if one of these three shifts is on a Sunday, the total earnings amount to €984.57, in comparison with £572.22 in the NHS (€794.75 on a PPP basis). A standard night shift 'week' actually crosses over two weeks as the nurse works seven nights and has seven nights off; a total of 75 hours. Total earnings for such a week in Ireland amount to €2,031.50, in comparison with £1,264.51 in the UK (€1,756.26 on a PPP basis). The differentials range from approximately 4 per cent for day shift 2 to 24 per cent for day shift 3.

<sup>39</sup> The calculations in Tables 13.8 and 13.9 have been validated by the HSE (HSE, personal communication; 26 May 2010).

The differentials with the UK have been reduced substantially as a result of the public sector pension deductions and pay cuts that were implemented over the course of 2009-2010. Prior to that, the differentials between Irish and UK costs for the various nurse rosters ranged from 15 per cent (for day shift 2) to 36 per cent (for day shift 3). With the exception of the Saturday payment, both higher basic rates of pay and entitlement to additional payments, account for the difference in the cost of applying a staff nurse in Ireland and the UK. For example, a staff nurse working a night shift hour on a Sunday in Ireland receives a Sunday premium plus a night premium (time x 2.25); an equivalent hour in the UK system would be a Sunday premium only (time x 1.6). In addition, it is not always the case that the terms and conditions of employment are strictly adhered to in the Irish system and there is evidence to show that local implementation of terms and conditions results in larger differentials with the UK for some shifts.<sup>40</sup>

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<sup>40</sup> For example, in HSE-South East, nurses working day shifts 1, 2, 3 and 4 are paid for 4.5 hours per week at night duty rates (for working 07.30-08.00 and 20.00-21.00) (HSE, personal communication; 26 May 2010). This results in cost differentials with the UK of between 6 per cent and 24 per cent (using 2010 rates of pay). While we cannot discount the possibility of similar local arrangements in the UK, one of the stated purposes of AfC was to eliminate anomalies such as this.

**TABLE 13.8**  
Nurse Rota – Day Shift

HSE	Hours				Earnings (€)				Total Cost (€)	
	Basic	Premium			Night	Unsocial	Premium			Public Holiday
		Night	Unsocial	Saturday			Sunday	Saturday		
<b>Rate per hour (2009)</b>										
Type 1	37.5	n/a	9.00	No	0.0	0.0	0.0	0.0	789.90	
Type 2	37.5	n/a	9.00	Yes	0.0	0.0	0.0	0.0	806.00	
Type 3	37.5	n/a	9.00	No	12.5	0.0	0.0	0.0	1043.07	
Type 4	37.5	n/a	9.00	Yes	12.5	0.0	0.0	0.0	1059.17	
<b>Rate per hour (2010)</b>										
Type 1	37.5	n/a	9.00	No	0.0	0.0	0.0	0.0	745.60	
Type 2	37.5	n/a	9.00	Yes	0.0	0.0	0.0	0.0	760.90	
Type 3	37.5	n/a	9.00	No	12.5	0.0	0.0	0.0	984.57	
Type 4	37.5	n/a	9.00	Yes	12.5	0.0	0.0	0.0	999.87	

NHS	Hours				Earnings (£)				Total Cost (£)	Total Cost (€ PPP)	
	Basic	Premium			Night	Unsocial	Premium				Public Holiday
		Night	Unsocial	Saturday			Sunday	Saturday			
<b>Rate per hour (2009)</b>											
Type 1	37.5	n/a	3.0	0.0	0.0	0.0	0.0	0.0	458.14	645.27	
Type 2	37.5	n/a	2.0	12.5	0.0	0.0	0.0	0.0	499.30	703.24	
Type 3	37.5	n/a	2.0	0.0	12.5	0.0	0.0	0.0	54 <sup>4</sup> .05	766.27	
Type 4	37.5	n/a	1.0	12.5	12.5	0.0	0.0	0.0	585.21	824.24	
<b>Rate per hour (2010)</b>											
Type 1	37.5	n/a	3.0	0.0	0.0	0.0	0.0	0.0	481.87	669.26	
Type 2	37.5	n/a	2.0	12.5	0.0	0.0	0.0	0.0	525.16	729.39	
Type 3	37.5	n/a	2.0	0.0	12.5	0.0	0.0	0.0	572.22	794.75	
Type 4	37.5	n/a	1.0	12.5	12.5	0.0	0.0	0.0	615.51	854.88	

Notes:

Type 1: 3 weekday shifts: 0730-1300 and 1400-2100.

Type 2: 2 weekday shifts and one Saturday shift: 0730-1300 and 1400-2100.

Type 3: 2 weekday shifts and one Sunday shift: 0730-1300 and 1400-2100.

Type 4: 1 weekday shift, 1 Saturday and 1 Sunday: 0730-1300 and 1400-2100.

HSE 'Staff Nurse' pay scale (point 6) 2009: €39,630.20 and 2010: €37,407.90.

NHS Pay Band 5 (point 20) 2009: £23,345 and 2010: £24,554.

The PPP rate at December 2009 was €1=£0.71 and at March 2010 was €1=£0.72.

Sources: Calculated from DoHC, 2008; NHS Employers, 2009; OECD, 2009b; DoHC, 2010; NHS Employers, 2010b; OECD, 2010

**TABLE 13.9**  
Nurse Rota – Night Shift

HSE	Hours							Earnings (€)							
	Basic	Premium						Night	Premium						Total Cost (€)
		Public Holiday	Sunday	Saturday	Unsocial	Sunday	Saturday		Unsocial	Saturday	Sunday	Public Holiday			
<b>Rate per hour (2009)</b>	-	-	-	-	-	-	-	<b>5.06</b>	<b>3.38</b>	<b>16.10</b>	<b>20.25</b>	<b>20.25</b>	<b>20.25</b>	<b>20.25</b>	
Week 1	67.82	67.82	0.00	Yes	10.72	0.00	0.00	343.40	0.00	16.10	217.12	0.00	0.00	1,949.42	
Week 2	7.22	7.22	0.00	No	0.00	0.00	0.00	36.56	0.00	0.00	0.00	0.00	0.00	182.79	
<b>Total</b>	<b>75.04</b>	<b>75.04</b>	<b>0.00</b>	-	<b>10.72</b>	<b>0.00</b>	<b>0.00</b>	<b>379.96</b>	<b>0.00</b>	<b>16.10</b>	<b>217.12</b>	<b>0.00</b>	<b>0.00</b>	<b>2,132.21</b>	
<b>Rate per hour (2010)</b>	-	-	-	-	-	-	-	<b>4.78</b>	<b>3.19</b>	<b>15.30</b>	<b>19.12</b>	<b>19.12</b>	<b>19.12</b>		
Week 1	67.82	67.82	0.00	Yes	10.72	0.00	0.00	324.14	0.00	15.30	204.94	0.00	0.00	1,840.96	
Week 2	7.22	7.22	0.00	No	0.00	0.00	0.00	34.51	0.00	0.00	0.00	0.00	0.00	172.54	
<b>Total</b>	<b>75.04</b>	<b>75.04</b>	<b>0.00</b>	-	<b>10.72</b>	<b>0.00</b>	<b>0.00</b>	<b>358.65</b>	<b>0.00</b>	<b>15.30</b>	<b>204.94</b>	<b>0.00</b>	<b>0.00</b>	<b>2,013.50</b>	

NHS	Hours							Earnings (£)							
	Basic	Premium						Night	Premium						Total Cost (£)
		Public Holiday	Sunday	Saturday	Unsocial	Sunday	Saturday		Unsocial	Saturday	Sunday	Public Holiday			
<b>Rate per hour (2009)</b>	-	-	-	-	-	-	-	-	<b>3.58</b>	<b>3.58</b>	<b>7.16</b>	<b>7.16</b>	<b>7.16</b>		
Week 1	67.82	n/a	46.38	10.72	0.00	0.00	0.00	n/a	166.01	38.37	76.74	0.00	0.00	1,090.26	
Week 2	7.22	n/a	7.22	0.00	0.00	0.00	0.00	n/a	25.84	0.00	0.00	0.00	0.00	111.98	
<b>Total</b>	<b>75.04</b>	<b>n/a</b>	<b>53.60</b>	<b>10.72</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>n/a</b>	<b>191.85</b>	<b>38.37</b>	<b>76.74</b>	<b>0.00</b>	<b>0.00</b>	<b>1,202.25</b>	
<b>Rate per hour (2010)</b>	-	-	-	-	-	-	-	<b>3.76</b>	<b>3.76</b>	<b>7.53</b>	<b>7.53</b>	<b>7.53</b>	<b>7.53</b>		
Week 1	67.82	n/a	46.38	10.72	0.00	0.00	0.00	n/a	174.6	40.4	80.7	0	0	1,146.7	
Week 2	7.22	n/a	7.22	0.00	0.00	0.00	0.00	n/a	27.2	0.0	0.0	0	0	117.8	
<b>Total</b>	<b>75.04</b>	<b>n/a</b>	<b>53.60</b>	<b>10.72</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>201.78</b>	<b>40.36</b>	<b>80.71</b>	<b>0.00</b>	<b>0.00</b>	<b>1,756.26</b>	

Notes: Over the two week period the employee works 7 shifts of 0047-0800 to 2030-0000.  
HSE 'Staff Nurse' pay scale (point 6) 2009: € 39,630.20 and 2010: €37,407.90.  
NHS Pay Band 5 (point 20) 2009: £23,345 and 2010: £24,554.  
The PPP rate at March 2010 was €1=£0.72.

Sources: Calculated from DoHC, 2008; NHS Employers, 2009; OECD, 2009b; DoHC, 2010; NHS Employers, 2010b; OECD, 2010



### 13.6 SUMMARY

Over the period 2000-2006, employment in the public health service has increased by 32.7 per cent, while expenditure on public health pay has increased by 67.1 per cent over the same period (see Tables 13.1 and 13.3). Rates of growth in employment were higher in the earlier part of the decade (i.e. prior to the establishment of the HSE) and there is some evidence to suggest that the growth in the management/administration category over the period 2000-2009 was particularly strong among the more senior clerical grades (see Tables 13.1 and 13.2). Non-basic and non-PRSI payments accounted for approximately 16 per cent of total pay in 2008, with overtime, on-call, weekend and night duty payments accounting for significant proportions of the pay of medical/dental, nursing and maintenance/technical staff in particular (Table 13.5).

Benchmarking Irish experience with that of other OECD countries and even the UK is difficult, due to differences in data sources, definitions and methodologies. However, in terms of pay and working terms and conditions, Irish basic rates of pay are in general higher than those applying in the UK and Irish working terms and conditions are more complex and on average more generous (e.g. definition of core working week) than those applying in the UK. Costing a representative staff nurse roster using Irish and UK pay rates and eligibility for premium, on-call, etc. payments suggests that Irish costs are between 4 per cent and 24 per cent higher than those in the UK. While not yet subject to a thorough evaluation of the precise costs and benefits involved (and there is some evidence to suggest that the initial costs were substantial), the experience with the implementation of AfC in the NHS (which involved large-scale simplification and modernisation of the pay bands and working terms and conditions of over 1m NHS employees over the period 2004-2006) offers a useful case study.

Concerns over the sustainability of public sector expenditure on pay are not new, nor are they confined to the health sector. Apart from the general public service pay cut which took effect on 01 January 2010, the Employment Control Framework is a key component of current attempts to limit the growth in the public health pay bill. However, there are concerns over whether simply restricting the level of employment is sufficient to ensure long term savings in the public health pay bill. However, the draft Public Service Agreement 2010-2014 contains a commitment to extending the definition of the core working day and week for all staff (and would therefore represent a significant step forward over current initiatives which are restricted to new entrants). Apart from standardised and simplified pay bands and terms and conditions of employment, ensuring that the public health workforce is employed most efficiently is crucial in ensuring sustainability.

Adapting the skill mix of the public health workforce to deliver a more efficient service has been highlighted in many reports on Irish health care over the last decade. For example, the Report of the Working Group on the Effective Use of the Professional Skills of Nurses and Midwives in 2001 recommended the introduction of a grade of Health-care Assistant/Maternity Health-care Assistant as a member of the health-care team to assist and support the nursing and midwifery function (DoHC, 2001) and there are currently over 13,000 health-care assistants (DoHC, personal communication; 30 June 2010). A key component of the AfC process is the Job Evaluation process, which allows NHS managers to design and evaluate new roles. The draft agreement does, however, recognise the importance of a reorganised health service and in particular *'further developing and utilising the skills of all health professionals through the introduction of expanded roles and direct referral pathways'* (Department of Finance, 2010b; 15). Ensuring that staff are deployed in the most efficient manner (setting and role) also has important implications for sustainability.

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# Chapter 14

## Technical Efficiency in the Acute Hospital Sector: A Preliminary Analysis

### 14.1 INTRODUCTION

The Terms of Reference for the Expert Group on Resource Allocation and Financing in the Health Sector specify that recommendations are to be based '*on the existing quantum of public funding for health*' (DoHC, 2009a). An important question is, therefore, what is the scope for improved technical efficiency to release resources to allow service improvements? This chapter provides some preliminary estimates of the savings that could be achieved if

- (a) all public hospitals in Ireland were as technically efficient as the most efficient public hospitals in Ireland
- (b) Public hospitals in Ireland were all as technically efficient as the most efficient health-care systems in the OECD countries.

The analysis does not include other possible cost savings (such as lower wages and salaries in the public sector or technological improvement) and the assessment is against the best that has been achieved elsewhere and not the best that could be achieved here or elsewhere.<sup>1</sup> It also does not fully account for the greater savings that might be made from more fundamental reorganisation of service delivery (e.g. possibly shifting some delivery to primary or community care). What follows uses an internationally-accepted empirical approach, namely data envelopment analysis (DEA), and incorporates hospitals' casemix, their teaching activities and the effects of providing emergency services. While this approach can be used to monitor performance of individual hospitals, this preliminary analysis does not have the necessary precision to do this (though it does allow the overall level of relative efficiency to be assessed, see Section 14.2). Given the preceding discussions in Chapters 11, 12 and 13 regarding the main drivers of health-care expenditure, it continues to remain important to improve technical efficiency – not only within the acute hospital sector but in the health-care system more generally – given persistent upward pressures on public health expenditure, not least due to Ireland's ageing population (Layte, 2009).

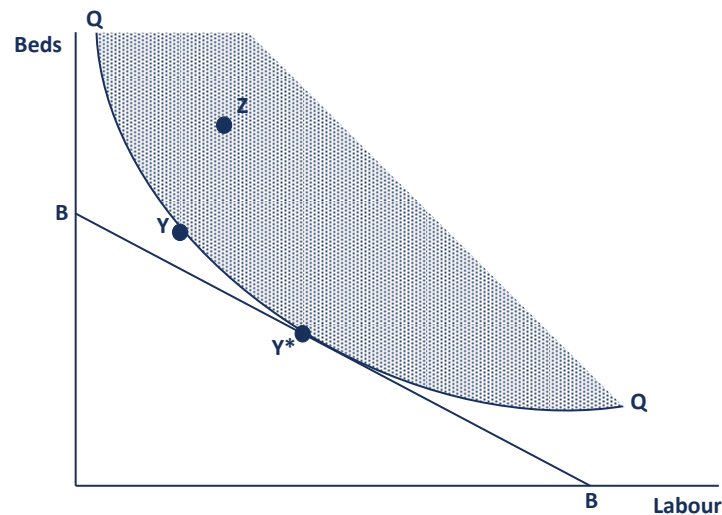
<sup>1</sup> Thus, this analysis is concerned with relative, rather than absolute, efficiency.

This chapter begins by defining efficiency and how it is measured in the context of health care (Section 14.2). Section 14.3 then briefly reviews the international and national evidence on the efficiency of health care and attempts to benchmark the Irish health-care system internationally. A new, updated analysis of technical efficiency of Irish acute public hospitals is discussed in Section 14.4. Based on these results and the available Irish literature, Section 14.5 contains tentative quantitative estimates of the potential efficiency savings that could be achieved in the Irish health-care system. Section 14.6 summarises the key issues.

## 14.2 EFFICIENCY IN HEALTH CARE

This section outlines the concept of efficiency using a simple example in which a hospital has at its disposal two inputs – say, labour (which, for illustrative purposes is assumed to be a single, homogeneous group of staff) and capital (as proxied by beds) – used to produce a single output (number of patients treated, again assumed to be a homogeneous group). The line QQ in Figure 14.1 is the production function which specifies the maximum level of output that can be produced given various input levels and existing technology.<sup>2</sup>

**FIGURE 14.1**  
Hospital Production Function with Two Inputs and One Output



Source: Adapted from Jacobs *et al.*, 2006

<sup>2</sup> A change in technology would be represented by a shift in the production function. A technological improvement, for example, would shift the production function left towards the origin, indicating that a higher number of patients could now be treated using the same level of staff and beds.



Efficiency captures the proficiency with which inputs can be transformed into outputs; it has technical and allocative components (Palmer *et al.*, 1999; Jacobs *et al.*, 2006; Bentley *et al.*, 2008). The technical component is essentially concerned with avoiding waste in the production process, by producing as much output as possible given existing technology and input levels (or conversely, by using the minimum amount of input possible to produce a given level of output).<sup>3</sup> According to one definition 'a producer is technically efficient if an increase in any output requires a reduction in at least one other output or an increase in at least one input, and if a reduction in any input requires an increase in at least one other input or a reduction in at least one output' (Fried *et al.*, 2008a; 19, citing Koopmans, 1951). For instance, in Figure 14.1, a hospital at point Y\* on the production function QQ could not treat more patients without employing more staff and/or increasing bed numbers. Thus, all points along the production function are technically efficient (i.e. zero waste). It follows, then, that any point above the production function QQ – namely in the shaded area – is technically inefficient. For example, more inputs are being used at point Z to produce output than would be required on the production function. A hospital at point Z could reduce its inputs, improve efficiency, and move to the technically efficient point Y or Y\*, thus eliminating waste while maintaining existing activity levels and quality of care.

Although technical efficiency identifies all possible combinations of inputs that can generate maximum output, it does not consider which one of these input combinations is optimal given input prices (e.g. staff wages). The allocative component of efficiency is concerned with how to combine inputs and/or outputs in the best possible proportions given prevailing prices (Palmer *et al.*, 1999; Jacobs *et al.*, 2006; Fried *et al.*, 2008b). The line BB in Figure 14.1 represents the budget line and illustrates the ratio of the prices of the two inputs (wages and rent). While the hospital at point Y is technically efficient, it is not allocatively efficient because it is not producing at the cost-minimising point where the production function is tangent to the budget line, Y\*. Together technical and allocative efficiency make up economic efficiency. In Figure 14.1 the point of overall economic efficiency is Y\*, where a hospital cannot produce any more output at a lower cost given current levels of inputs and input prices (and existing technology).

In the absence of readily available data on input prices in Irish acute public hospitals, allocative efficiency cannot be easily quantified, and hence the analysis that follows considers only technical efficiency. *A priori* there are a number of possible means to enhance hospital technical efficiency *ceteris paribus*, such as reducing length of stay and hence raising patient throughput; increasing day of surgery admission; extending the availability of diagnostics; facilitating weekend discharge; and further

<sup>3</sup> Thus efficiency savings may be achieved by identifying and eliminating waste in the production process, while at least maintaining activity at existing levels (and without compromising quality of care). This is distinct from expenditure cuts which may adversely impact on activity levels and quality of care.

involving senior clinicians in decision-making.<sup>4</sup> National and international studies that have attempted to measure technical efficiency in health care are reviewed in the next section.

### 14.3 REVIEW OF EXISTING LITERATURE

#### 14.3.1 International Evidence

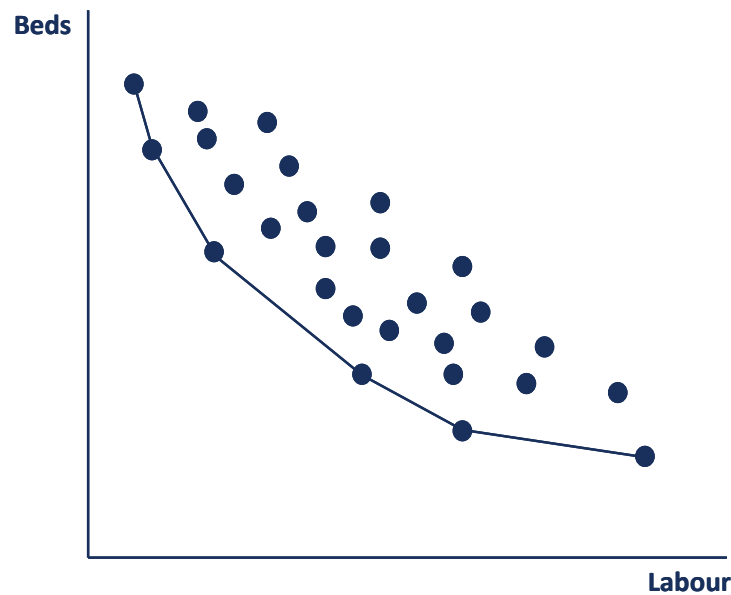
International research on efficiency in health care has grown rapidly in recent years. In a review of 317 papers published up to 2006 on this topic, most appeared in the six years since the turn of the millennium and over half involved applications to hospitals (Hollingsworth, 2008). Advances in statistical methods and software, together with the availability of data, have at least partially contributed to this research interest – but the supply of studies also satisfies a growing demand from hospital managers and policy makers to maximise efficiency and regulate health-care organisations (Smith *et al.*, 2005).

DEA has emerged as the dominant approach in efficiency measurement (Charnes *et al.*, 1978; Jacobs *et al.*, 2006; Hollingsworth, 2008).<sup>5</sup> Under DEA, data on individual hospital inputs (e.g. staff and beds) and outputs (e.g. number of patients treated) are used to determine the efficient production frontier by linking those observations with the highest ratios of output to input (see Figure 14.2). The production function, therefore, represents best observed practice (although not necessarily best achievable practice) and is used as the benchmark against which efficiency scores are estimated (Cook *et al.*, 2009). Although the concept may be relatively straightforward, the practical application of DEA (and, indeed, other methods of efficiency measurement) is made difficult by the data requirements: the need to capture all the appropriate inputs and outputs, and to adjust for the quality of care.

<sup>4</sup> Thus, an example of improving technical efficiency would be replacing open with laparoscopic surgery, which should reduce length of stay *ceteris paribus* if performed on either an inpatient or day case basis. Of course any new initiatives must be feasible within existing technology.

<sup>5</sup> See, *inter alia*, Jacobs *et al.* (2006) and Fried *et al.* (2008b) for reviews of other techniques of efficiency measurement.

**FIGURE 14.2**  
Hypothetical Production Function Estimated Using DEA

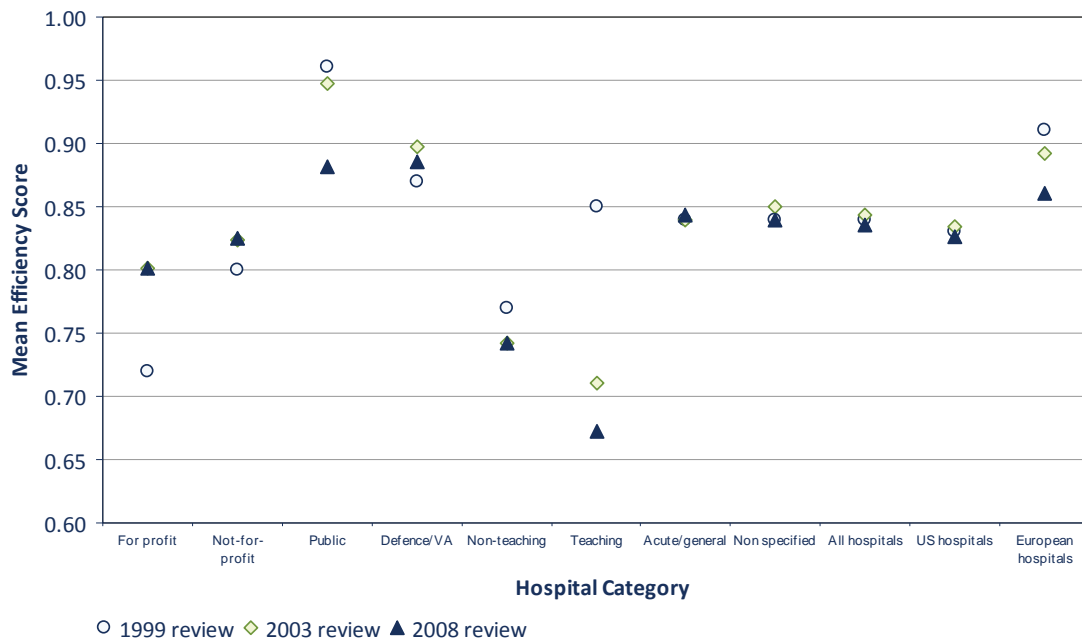


Three comprehensive reviews have summarised the vast literature on efficiency in health care published from 1983 to 2006 (Hollingsworth *et al.*, 1999; Hollingsworth, 2003; 2008).<sup>6</sup> Figure 14.3 illustrates the efficiency scores for groups of hospitals, averaged (cumulatively) across the studies included in the three reviews. The heterogeneity across studies (for example, with regard to the types of outputs and inputs included, time period under study, and the assumption and methods employed) makes direct comparisons difficult; nevertheless, the results do suggest some interesting trends. Importantly, the mean efficiency scores for all hospitals were consistently just less than 85 per cent, indicating that there is potential to reduce inputs by approximately 15 per cent while continuing to produce the same level of output. These scores are broadly consistent with those published since 2006.<sup>7</sup>

<sup>6</sup> The 1999 review included 91 studies published up to and including 1997, of which the earliest appeared in 1983. The subsequent 2003 and 2008 reviews included the studies identified in the 1999 review, as well as those published up to and including 2002 and mid-2006 respectively. There were 188 studies included in the 2003 review and 317 studies in the 2008 reviews.

<sup>7</sup> For example, using a sample of hospitals in Virginia, Nayar *et al.* (2008) found that the average mean efficiency score across all hospitals was 0.81, increasing to 0.86 when quality of care was included in the model. Lee *et al.* (2009) argued that non-profit hospitals in Florida were consistently more efficient over a four-year period than their for-profit counterparts.

**FIGURE 14.3**  
Mean Efficiency Scores by Hospital Category



Notes: VA = Veterans Administration.

Truncated at 0.60 for consistency with Figure 14.4 and to show variation more clearly.

A mean efficiency score of 1 indicates the hospital group is efficient. A mean efficiency score of less than 1 indicates that the hospital category is inefficient.

Sources: Adapted from Hollingsworth *et al.*, 1999; Hollingsworth, 2003, 2008

Comparing efficiency across the hospital sector, public hospitals appear to be systematically more efficient than either for-profit or not-for-profit private hospitals (see Figure 14.3). According to the two later reviews, teaching hospitals tended to be less efficient on average than non-teaching hospitals. European hospitals were found to be generally more efficient than US hospitals. *A priori*, increasing pressures to contain costs and learning-by-doing may be expected to lead to improved efficiency over time. However, contrary to this expectation, the trends in estimated mean efficiency over time were mixed. Hollingsworth's later reviews reported lower mean efficiency scores for European hospitals, indicating that later studies found lower levels of efficiency thereby reducing the cumulative mean. In contrast, the efficiency of for-profit and not-for-profit hospitals seems to have improved over time. Efficiency levels for all hospitals and US hospitals were almost unchanged across the three reviews, even though the number of included studies increased substantially.<sup>8</sup> However, as previously mentioned, comparisons over time and across studies should be interpreted with caution due to differences in data and methods.

That there have been fewer attempts to measure efficiency in other health areas (e.g. primary care) has been attributed to the even more diverse range of services

<sup>8</sup> The 1999 review included 32 studies of US hospitals and 35 of all hospitals, increasing to 59 and 99 respectively in the 2008 review.

provided and the inadequacy of available data (Hollingsworth, 2003). Figure 14.4 summarises the estimated mean efficiency scores in primary care from those US and European studies that were included in the reviews. While there is clear scope for efficiency improvements in primary care in both regions, the potential is apparently greater in the US compared to Europe. This finding, Hollingsworth *et al.* (1999) argue, may be related to the diversity of primary care between the US and Europe and to the established role of primary care physicians in the latter region acting as gatekeepers assisting in controlling growth in health-care expenditure.<sup>9</sup> It should be noted, though, that there is a narrowing of the US-Europe efficiency gap over time.

**FIGURE 14.4**  
Mean Efficiency Scores in Primary Care



**Notes:** As for Figure 14.3.  
A mean efficiency score of 1 indicates the organisation is efficient. A mean efficiency score of less than 1 indicates that the organisation is inefficient.

**Sources:** As for Figure 14.3.

### 14.3.2 Irish Evidence

In Ireland, policy makers have acknowledged the importance of optimising the performance of the public health-care sector (HSE, 2010a). Yet despite this health policy context and the international proliferation of academic studies, interestingly there has been a comparative dearth of research on the measurement of efficiency in the Irish acute hospital sector. To date, the only systematic research has been Gannon's seminal studies (Gannon, 2005; 2007). Gannon (2005) used DEA to estimate separately the technical efficiency of 22 county hospitals and 13 regional/general hospitals over the period 1995-2000. Labour inputs were captured

<sup>9</sup> Bhat (2005) came to a similar conclusion regarding the role of primary care physicians as gatekeepers in a study of efficiency at health system level among 24 OECD countries.

as the number of whole time equivalent medical and non-medical staff. The number of beds was used as a proxy for capital. Outputs comprised the number of complexity-adjusted day cases and inpatients, and outpatients (unadjusted for complexity). These outputs were not adjusted for quality of care. Her estimated mean efficiency scores for county hospitals declined slightly over the period under study from 0.96 in 1995-1996 to 0.94 in 1999-2000. In contrast, the mean efficiency of regional/general hospitals improved very marginally from 0.96 in 1995-1997 to 0.97 in 1998-2000. In both cases, the mean scores are consistently very near to the point of efficiency (a score of unity). However, focusing on the mean scores overlooks the not inconsiderable variation across hospitals within each category – for instance, the lowest efficiency score among county hospitals in 1999-2000 was 0.84. In an updated study, Gannon (2007) reported similarly high levels of efficiency on average for a sample of 13 hospitals (mean score of 0.99 when outputs were not adjusted for complexity) during the later period 2000-2002, but the range of performance was greater (the lowest score was 0.81 with complexity-adjusted outputs).

The efficiency of Ireland's primary care sector has received even less attention, which is at least partly due to the paucity of data. In the only known research, Lordan (2007; 2009) estimated the efficiency of out-of-hours (OOH) co-operatives on the island of Ireland between May 2004 and May 2005 using parametric techniques (an alternative to DEA). In her 2007 study, Lordan's sample comprised 11 OOH co-ops: six from the Republic and the remaining five from Northern Ireland. The model used payroll as the output measure and home visits, treatment centre consultations, nurse and doctor advice as the inputs; it also controlled for nurse or doctor triaging, patient casemix and quality of care. The estimated mean efficiency scores varied from 0.70 to 0.87, depending on the assumptions incorporated into the model. Her 2009 study examined the efficiency of 39 centres within five OOH co-operatives in the Republic with similar outputs, inputs and environmental variables (Lordan, 2009). The mean efficiency score from her preferred model was 0.66, with a substantial range of 0.45 to 0.74.

### 14.3.3 Placing the Irish Health-Care System in an International Context

Gannon's research suggests that Irish acute public hospitals are, on average, very close to the point of technical efficiency by their own standards, albeit with a number of poorly-performing outliers. By definition, this type of analysis is unable, though, to determine whether the best performing Irish hospitals are efficient by international standards. While there is a lack of research comparing hospital efficiency internationally, it is possible to ascertain broadly from a small number of published studies how the Irish health-care system as a whole performs relative to its international counterparts. However, benchmarking a country's performance internationally is a very difficult exercise. If different estimation techniques, assumptions and model specifications are among the factors that hinder

comparisons across individual (single-country) studies, then the availability of comparable data is but one additional barrier to undertaking cross-country comparisons of efficiency in a single study (Hollingsworth, 2003). This is why few researchers have attempted to measure international differences in health-care efficiency, and the results which are available should be interpreted with caution.<sup>10</sup>

Cognisant of these caveats, Table 14.1 summarises studies that have used DEA to measure cross-country health system efficiency (including that of Ireland).<sup>11</sup> The results are mixed. Two of the three studies identified potential scope for efficiency improvements in Irish health care, but the scale of these improvements varied. The estimated efficiency score of the Irish health-care system ranged from 0.72 to 0.96 in these two studies and was consistently below the overall international average, with Ireland ranked between 14th and 21st out of 24.

<sup>10</sup> For example, the methods adopted by the 2000 report of the World Health Organization (WHO, 2000) in attempting to assess and rank the overall efficiency and performance of health systems throughout the world generated much debate (see, *inter alia*, Murray *et al.*, 2001; Williams, 2001; Hollingsworth *et al.*, 2003). In supplementary statistical analyses to WHO (2000), Ireland ranked 32nd out of 191 on the efficiency of producing disability-adjusted life years and 19th out of 191 on producing a composite index of five goals (health, health equality, level and distribution of responsiveness, and fair financing), which was the country's ranking on overall health system performance in the 2000 WHO report (Evans *et al.*, 2000; Tandon *et al.*, 2000).

<sup>11</sup> Spinks *et al.* (2009) used DEA to analyse the efficiency of health production in 28 OECD countries (including Ireland). Life expectancy at birth was used to measure output and inputs were captured as education, employment, income and health spending. Thus, this analysis attempted to examine the impact of broader determinants on health – not just the impact of the health-care system on health outcomes (and, consequently, it is not directly comparable with the studies included in Table 14.1). The estimated technical efficiency score for Ireland was 0.97 and 0.96 using OECD data for 1995 and 2000 respectively and 0.95 using WHO data in both 1993 and 1997. Compared to its international peers, therefore, Ireland appears to be relatively efficient at producing health outcomes, but there is some scope for improvement.

**TABLE 14.1**  
Summary of International Studies Using DEA to Measure Technical Efficiency

Study	Year of Analysis	Sample	Outputs	Inputs	Results	
					Ireland	Full sample
Retzlaff-Roberts <i>et al.</i> , 2004	1998	27 countries	<ol style="list-style-type: none"> <li>1. Infant mortality</li> <li>2. Life expectancy at birth</li> </ol>	<ol style="list-style-type: none"> <li>1. Practicing physicians per 1,000 population</li> <li>2. Number of inpatient beds per 1,000 population</li> <li>3. Number of MRI units per 1m population</li> <li>4. Ratio of per capita health expenditure (US\$, PPP) to per capita GDP</li> </ol> <p>Also adjusts for a number of social environment factors (e.g. tobacco use).</p>	<p>Output-oriented: Score = 1 (for both outputs)</p> <p>Input-oriented: Score = 1 (for both outputs)</p>	<p>On average, inefficient countries could achieve a 14.5% improvement in infant mortality and a 2.1% improvement in life expectancy (given the level of health-care resources). Alternatively, inefficient countries on average can reduce inputs by 14.0% without adversely affecting infant mortality and by 21.0% without adversely affecting life expectancy.</p>
Afonso <i>et al.</i> , 2005	2000	24 OECD countries	<ol style="list-style-type: none"> <li>1. Life expectancy</li> <li>2. Infant survival rate</li> </ol>	<ol style="list-style-type: none"> <li>1. Number of doctors</li> <li>2. Number of nurses</li> <li>3. Number of inpatient beds per 1,000 population</li> </ol>	<p>VRS, output-oriented: Score = 0.96 Rank = 21 CRS = 0.72</p> <p>VRS, input-oriented: Score = 0.72 Rank = 18</p>	<p>VRS, output-oriented: Average score = 0.98 VRS, input-oriented: Average score = 0.83 CRS = 0.82</p>
Bhat, 2005	circa 2000	24 OECD countries	<ol style="list-style-type: none"> <li>1. Population aged 0-19 years</li> <li>2. Population aged 20-64 years</li> <li>3. Population aged 65 years or older</li> </ol>	<ol style="list-style-type: none"> <li>1. Number of practicing physicians</li> <li>2. Number of practicing nurses</li> <li>3. Number of inpatient beds</li> <li>4. Value of pharmaceuticals consumed (measured in PPP, US\$)</li> </ol>	<p>Average score = 0.87 Rank = 14</p>	<p>Average score = 0.90<sup>a</sup></p>

Notes: VRS = variable returns to scale. CRS = constant returns to scale. PPP = purchasing power parity.

Input-oriented technical efficiency measures relate to the proportional reduction in input usage that is possible when output is held constant. Output-oriented technical efficiency measures relate to the proportional expansion in output quantities that are possible when inputs are held constant (Jacobs *et al.*, 2006).

<sup>a</sup> Calculated using data reported by Bhat (2005).

Sources: Retzlaff-Roberts *et al.*, 2004; Afonso *et al.*, 2005; Bhat, 2005



## 14.4 NEW PRELIMINARY ESTIMATION OF TECHNICAL EFFICIENCY IN IRISH ACUTE PUBLIC HOSPITALS

### 14.4.1 Data and Methods

This section presents new estimates of the technical efficiency of Irish acute public hospitals over the period 2005-2008 using DEA.<sup>12</sup> The outputs were: the number of complexity-adjusted inpatient and day case discharges obtained from the Hospital In-Patient Enquiry (HIPE); the numbers of new and return outpatient visits from the HSE/DoHC; and the number of emergency attendances also obtained from the HSE/DoHC.<sup>13</sup> The number of interns, taken from the HSE's Personnel Census, was used as a proxy for teaching outputs. Model inputs were the number of whole time equivalent medical and non-medical staff derived from the Personnel Census, and bed numbers from the HSE (through the DoHC).<sup>14</sup> Thus, this model extends the range of outputs incorporated in Gannon's analysis by including hospitals' emergency and teaching activities, and also attempts to make some adjustment for the complexity of outpatient visits by distinguishing between new and return attendances. Furthermore, unlike Gannon, the approach adopted here estimates efficiency for the full sample of acute public hospitals (rather than for each hospital sub-group), which facilitates comparison across all hospitals.<sup>15</sup> However, as in Gannon's analyses, no attempt is made to control for the quality of patient care.

Hospitals were included in the analysis if data from all sources were available for each year of the study period.<sup>16</sup> During the years under consideration, services were transferred from two hospitals – Hume Street Hospital closed, and Cashel Hospital ceased providing acute services. Data for these individual hospitals were combined with those of the hospitals to which services were transferred (these were easily identifiable). A service change that is more difficult to address is the creation of Cork University Maternity Hospital (CUMH) in 2007, which replaced maternity services previously provided in two public hospitals (St Finbarr's and Erinville) and one private hospital (Bons Secours). Identifying the relevant outputs and inputs for these three hospitals and CUMH is complicated. Firstly, data on the two public hospitals are not available from all of the sources utilised. Secondly, there is a lack of readily available data on the private hospital. Thirdly, some sources report combined data for CUMH with that of Cork University Hospital (CUH). Therefore, CUH, CUMH and its two component public hospitals were excluded from the baseline analysis.

<sup>12</sup> Unless otherwise stated, throughout the remainder of this chapter, the term 'efficiency' refers to technical efficiency.  
<sup>13</sup> Discharge activity was adjusted using parameters from the National Casemix Programme. Data on visits to outpatient and emergency departments for 2008 are provisional.

<sup>14</sup> Details of the parameters included in the model are contained in Appendix A6.11.

<sup>15</sup> If Gannon's approach of modelling efficiency for each hospital sub-group individually was adopted in this analysis, there would be concern that the estimated number of efficient observations would increase merely because the number of inputs and outputs had increased (Afonso *et al.*, 2005; Jacobs *et al.*, 2006). To avoid this, a rule of thumb suggests that the number of observations should be at least three times the number of outputs and inputs (Pedraja-Chaparro *et al.*, 1999).

<sup>16</sup> Thus, hospitals were excluded if, for instance, they participated in HIPE but not in the Personnel Census, or *vice versa*.

In addition to these hospital changes, data collection under the HIPE scheme was expanded in 2006 to capture day patient activity from dedicated dialysis units and from all radiotherapy centres (Health Research and Information Division, 2008). As data on dialysis treatment are reported by the HSE/DoHC, it is possible to incorporate this activity in the analysis for 2005 (the first year of the study period). However, it is not possible to do the same for radiotherapy. The enhancement of HIPE coverage appears to have particularly affected the outputs of one hospital which has, therefore, been excluded from this analysis. Overall, the sample comprises 47 hospitals.<sup>17</sup>

#### 14.4.2 Results

The results, presented in Table 14.2, indicate that on average Irish acute public hospitals had an estimated efficiency score of 0.94 during 2005-2008 – close to full technical efficiency. There is, though, considerable variation of scores across hospitals. The least efficient observation had a score of 0.65, indicating a potential reduction of 35 per cent in inputs whilst maintaining the current output level. These results were robust when subjected to the most obvious sensitivity analyses.<sup>18</sup>

**TABLE 14.2**  
DEA Technical Efficiency Scores, 2005-2008

Mean technical efficiency score	0.94
Minimum efficiency score	0.65
Number of hospitals	47
Number of observations <sup>a</sup>	188

Notes: Assumes VRS.

<sup>a</sup> One observation is one hospital (n = 47) in one year (4 years).

The efficiency scores from the input- and output-oriented models were virtually indistinguishable.

These average efficiency scores are consistent with those of the only other analyses of Irish acute public hospital efficiency covering the earlier periods 1995-2000 and 2000-2002 (Gannon, 2005; 2007). However, there is more variability in these efficiency scores compared to that identified by Gannon.<sup>19</sup>

<sup>17</sup> The analysis does not adjust for incomplete coverage of HIPE data. However, such an adjustment would be likely to only have a small effect because coverage of HIPE has been consistently high (in excess of 95 per cent) over the period under consideration (Health Research and Information Division, 2010).

<sup>18</sup> The model was run for the sub-period 2005-2006 (that is, prior to the establishment of CUMH) to examine the effect of CUH on the mean efficiency score. Including CUH (n = 48 hospitals) changed the mean efficiency score by only 0.01 units. To assess the impact of the extension of HIPE coverage, the analysis was repeated for the period 2006-2008 (i.e. after the extension). The mean efficiency score for this period was 0.95, again a difference of only 0.01 units from that obtained for the full period 2005-2008.

<sup>19</sup> That DEA-based efficiency scores for European (between 0.86 and 0.91) and US (around 0.83) hospitals are slightly lower than the Irish figures (see Figure 14.3; Hollingsworth *et al.*, 1999; Hollingsworth, 2003; 2008) may actually reflect a higher international standard for the best rather than better Irish performance (i.e. although Irish hospitals appear to be close to the national production function, recall from Table 14.1 that the Irish health-care system may be further from the international production function). However, such cross-country comparisons are complicated by differences in study methodologies.

The mean efficiency score in Table 14.2 has been disaggregated by hospital group in Table 14.3. The estimated mean efficiency score for voluntary hospitals are marginally higher than that for their HSE counterparts. Special hospitals have a slightly higher efficiency score on average than general hospitals. This latter finding may reflect the difficulty in operating a general hospital efficiently given that it comprises of heterogeneous departments. However, being univariate statistics, these results are indicative only: multivariate regression analysis is required to fully examine the relationship between hospital type/ownership and technical efficiency, controlling for possible confounding factors.

**TABLE 14.3**  
 Mean Technical Efficiency Score by Hospital Type and Ownership, 2005-2008

	Hospital Ownership		Hospital Type	
	Voluntary	HSE	General	Special
Mean technical efficiency score	0.97	0.93	0.93	0.97
Number of hospitals	16	31	36	11
Number of observations	64	124	144	44

Notes: As per Table 14.2.

## 14.5 ESTIMATING THE VALUE OF POTENTIAL EFFICIENCY IMPROVEMENTS: A SIMULATION

### 14.5.1 Acute Public Hospitals

If the average efficiency of Irish acute public hospitals were to improve to the level of the most efficient, estimated annual savings of approximately €300m could be achieved without reducing activity.<sup>20</sup> However, there could be scope for further improvement because the best observed practice in the Irish health-care system appears to fall short of the best practice among international health-care system. Taking Bhat's figures as a somewhat conservative estimate of the relative efficiency of Irish health-care providers in international terms (Bhat, 2005), if Irish acute public hospitals were to become as efficient as the best OECD performers, then the estimated additional potential savings would amount to about €611m, resulting in total efficiency savings of approximately €911m.<sup>21</sup> These estimated savings are notional and would only be financially realised if, for example, efficient practices resulted in a reduction in inputs.<sup>22</sup> Furthermore, these savings could be over- or under-estimated because Bhat's figures relate to the entire Irish health-care system, which may be more or less efficient than the acute public hospital sector.

Given this potential for improvements in technical efficiency, the HSE's 2010 Service Plan has explicitly specified a number of ways in which hospitals could achieve '*more efficient and effective use of beds*' (HSE, 2010a; 46). These include reducing the number of short-stay emergencies by increasing access to the specialist skills and senior clinical decision-making available in Medical Assessment Units, diagnostics and other ambulatory care services; minimising length of stay by reducing the current variance across hospitals for similar procedures; increasing patient admission on the day of surgery; using discharge planning; and protecting inpatient beds for elective surgery in an attempt to reduce waiting times. These strategies, covering each aspect of hospital care from access and admission through to discharge, are of course not mutually exclusive and indeed may be re-enforcing.<sup>23</sup>

National and international evidence does indeed suggest that these activities can promote efficiency. For instance, increased use of medical assessment units has

<sup>20</sup> A mean efficiency score of 0.94 (see Table 14.2) implies that inputs could be reduced by 6 per cent without affecting outputs. Estimated potential savings are therefore calculated on the basis of a 6 per cent reduction in public non-capital expenditure on the National Hospitals Office (NHO, which totalled €5bn in 2007; DoHC, 2009b).

<sup>21</sup> Assuming that the relative international efficiency of the Irish acute public hospital sector is equivalent to that of the Irish health care system as a whole, then Bhat's mean efficiency score of 0.87 (Bhat, 2005; see Table 14.1) implies that inputs can be reduced by 13 per cent without affecting outputs. Potential savings are thus estimated on the basis of a 13 per cent reduction in the 2007 public non-capital expenditure on the NHO (DoHC, 2009b). By comparison, efficiency improvements are expected to amount to savings of £10.5bn for the English NHS. This includes an annual saving of £500m from '*reductions in average length of stay in hospital, reducing waste in valuable hospital bed space and costs that occur when patients are kept in hospital longer than necessary, while improving patient experience and clinical outcomes*' (HM Treasury, 2009; 129).

<sup>22</sup> Under such circumstances, any efficiency savings may be offset slightly by (say) higher welfare benefits for unemployed staff unless staff from the acute sector could be redeployed to the primary care sector (or staff members who leave or retire are not replaced).

<sup>23</sup> Increasing surgical interventions on the day of admission, for example, will minimise the pre-operative stay and, therefore, should reduce overall length of stay, *ceteris paribus*.

been shown to reduce the length of hospital stays and to yield cost savings (see Cooke *et al.*, 2003, and Scott *et al.*, 2009, for systematic reviews and Moloney *et al.*, 2005, for evidence from Ireland). Increasing the day case rate for a particular procedure that is already widely performed on this basis (that is, within the existing technology) could also improve technical efficiency. O'Reilly *et al.* (2009) identified scope for this arising from the considerable variability across Irish acute public hospitals in the percentage of procedures undertaken on a day case basis.<sup>24</sup> For example, the median day case rate among hospitals for extraction of cataract with/without implant, a high volume procedure, was 43.4 per cent in 2006. Yet some hospitals did not perform any such procedures on a day case basis. If all hospitals increased their day case rate to the national upper quartile rate for that procedure, this would facilitate the treatment of over 2,000 elective inpatients as day cases.<sup>25</sup>

An overall caveat, though, is that exogenous factors can influence hospitals' apparent efficiency. For example, the increased availability of long-term care facilities in non-acute settings may allow hospitals to reduce their length of stay by discharging patients earlier, and thus potentially increase their output within their existing resources. In this case, hospitals would appear to be more technically efficient even though they were not responsible for instigating this change in practice and some of the cost savings at hospital level could be offset by higher costs for other parts of the health-care system.<sup>26</sup>

### 14.5.2 Primary Care

In terms of primary care, simply applying the most conservative estimate of inefficiency from Lordan (2007) study to primary, community and continuing care (PCCC) current expenditure in 2007 would result in estimated annual efficiency savings of over €1bn.<sup>27</sup> However, this estimate must be interpreted with caution not only for the reasons discussed above, but also because of the especially limited evidence base on efficiency in Ireland's PCCC sector.

<sup>24</sup> This analysis concentrated on 24 procedures that the UK Audit Commission, in conjunction with the British Association of Day Surgery, deemed suitable for treatment as day case procedures.

<sup>25</sup> It should be noted that the analysis presented in this chapter does not include efficiency improvements where advances in technology (such as the development of new techniques or equipment) would be required to allow procedures conducted on an inpatient basis to be performed on a day case basis.

<sup>26</sup> The analysis contained in this chapter does not examine the optimum mix of acute and non-acute resources, which would require detailed data on all sectors of the health-care system.

<sup>27</sup> Assuming that Lordan's most conservative estimated efficiency score of 0.87 for out-of-hours services can be translated to the wider PCCC sector, then this implies a 13 per cent reduction in inputs without affecting outputs. Hence estimated potential savings were calculated on the basis of a reduction of 13 per cent in 2007 public non-capital expenditure in the PCCC sector (DoHC, 2009b).

## 14.6 SUMMARY

The somewhat sparse existing empirical evidence on the technical efficiency of Irish acute public hospitals, together with the new preliminary estimates outlined above, indicate that there may be potential to improve technical efficiency in this part of Ireland's health-care sector. Scope for efficiency gains might also exist in the PCCC sector, although there is more uncertainty associated with this due to the paucity of relevant data. Efficiency gains (and associated cost savings) could be achieved by improving the average performance of Irish health-care providers to that of their most efficient national peers, with potential for additional gains if efficiency nationally is further improved to become aligned with best practice in OECD countries. While there might be barriers (of, say, technology and capacity) to achieving OECD efficiency levels in the short term, targets for currently underperforming Irish providers to 'catch-up' to best observed national practice may be feasible. The necessary changes in technique and service delivery are possibly least difficult to attain in the acute public hospital sector, which of course is already undergoing a significant reconfiguration of services.

In interpreting the results on hospital-level technical efficiency presented in Section 14.4, it is important to be cognisant of a number of qualifications. First, the analysis attempts to measure only one source of inefficiency and, therefore, does not take account of possible savings arising from other types of efficiency gains, such as reductions in input prices or the potential to (appropriately) transfer patient care from the acute to the non-acute sectors. Second, the number of patients treated per hospital, used as a measure of output, fails to fully capture health-care outcomes. Given the potential trade-off between efficiency and quality of care, additional analysis is required that attempts to incorporate quality into the model. Third, the analysis assumes that there was no technological change (i.e. no shift in the production function) over the study period 2005-2008. *A priori* it might be argued that significant technological change is unlikely to occur over such a relatively short timeframe, but ideally this assumption would be tested.

Faced with ongoing fiscal retrenchment as a consequence of the current adverse macroeconomic environment, health-care providers and policy makers already possess strong incentives to strive for maximum efficiency. Some improvements have already been delivered in recent years, such as reductions in length of stay and increased day case rates (HSE, 2010b). Nonetheless, there may be scope for further efficiency gains without compromising the quality of patient care, especially where providers lag behind their most efficient peers, or through the enhancement of methods of service delivery via learning-by-doing. Realising the potential savings suggested above, though, will be at least partly dependent on the fixed/variable nature of inputs. Realistically, efficiency improvements in the short- to medium-term can only be delivered through variable inputs such as staff, since it is generally inherently difficult to alter significantly the capital stock of (say) hospitals over

anything other than the long-run. Existing labour contracts in Ireland may be perceived as a barrier to change because, some would argue, they do not facilitate flexibility. Yet the natural turnover in health-care personnel (e.g. McCarthy *et al.*, 2002) may facilitate the redeployment over time of staff from one part of the health-care system to another, since replacement staff might not need to work in the same area as the staff member they replaced (assuming that efficiency improvements mean that necessary work can be undertaken by the remaining staff). In addition, it is important to consider the recent 'Public Service Agreement 2010-2014' (as discussed in Chapter 13), which, if implemented, has the potential to affect significant change in the terms and conditions of public health employment. Continuing to improve efficiency in Irish health care, then, will undoubtedly be a challenging process, but it is of increasing importance in order to try to minimise the conflict between the ever-expanding demand for health care and the inevitably-scarce available resources.

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# PART 6

## Appendix

**TABLE A6.1**

Public Health Expenditure and GNI (€m), 2000-2009

	Public Health Expenditure	GNI
2000	4.4	90.3
2001	7.1	98.8
2002	8.3	108.1
2003	9.3	119.5
2004	10.6	127.7
2005	11.9	139.0
2006	13.0	153.8
2007	15.0	162.4
2008	16.1	155.9
2009	16.0	129.8
<b>% change (2007-2009) nominal</b>	<b>6.7</b>	<b>-20.1</b>

*Note:* The latest OECD data on total health expenditure refer to 2007 and DoHC data on total health expenditure for 2007 and 2008 were not available at time of writing; therefore, an update to Table 11.1 cannot be provided. The data in this table contrast recent trends in *public* health expenditure and national income, illustrating the sharp drop in national income that has occurred since 2007 (over 20 per cent in nominal terms, in comparison to a 6.7 per cent nominal increase in public health expenditure).

*Sources:* CSO Database Direct ([www.cso.ie](http://www.cso.ie)) [last accessed 27 June 2010]; Barrett *et al.*, 2010; Department of Finance, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009

**TABLE A6.2**

Public Health Expenditure as a % of Total Public Expenditure, 2000-2009

	Ireland
2000	24.7
2001	25.7
2002	23.3
2003	24.2
2004	25.5
2005	26.2
2006	26.1
2007	26.3
2008	25.9
2009	25.4

*Note:* The data in this table are not directly comparable with those presented in Table 11.2 (which are based on a different definition of public health expenditure, i.e. based on the OECD System of Health Accounts, SHA). As discussed in Section 6.2, it is estimated that approximately 20 per cent of Irish public health expenditure is excluded under the SHA definition (Wren, 2004).

*Sources:* Calculated from Department of Finance (2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008; 2009)

**TABLE A6.3**

Public Health Expenditure by Programme, 2000-2004 (€m, %)

	2000	2001	2002	2003	2004	% change 00-04
General Hospitals	2,604.5 (46.4)	3,291.4 (47.0)	3,801.5 (46.5)	4,180.7 (45.9)	4,518.8 (45.7)	49.5
Community Protection	224.8 (4.0)	314.3 (4.5)	275.3 (3.4)	302.2 (3.3)	333.5 (3.4)	27.9
Community Health Services	985.0 (17.6)	1,191.6 (17.0)	1,526.1 (18.7)	1,678.0 (18.4)	1,868.7 (18.9)	63.5
Community Welfare	445.9 (7.9)	581.4 (8.3)	703.8 (8.6)	774.2 (8.5)	841.2 (8.5)	62.6
Mental Health	433.7 (7.7)	497.1 (7.1)	563.7 (6.9)	619.5 (6.8)	661.4 (6.7)	31.4
Disability	651.6 (11.6)	815.9 (11.6)	962.9 (11.8)	1,155.9 (12.7)	1,230.6 (12.4)	62.8
General Support	264.9 (4.7)	318.3 (4.5)	333.5 (4.1)	407.0 (4.5)	436.6 (4.4)	42.0
<b>Total</b>	<b>5,610.3</b> <b>(100)</b>	<b>7,010.1</b> <b>(100)</b>	<b>8,166.7</b> <b>(100)</b>	<b>9,117.4</b> <b>(100)</b>	<b>9,890.8</b> <b>(100)</b>	<b>51.9</b>

Notes: Percentage of Total Gross Expenditure in parentheses.

Pre-HSE programme areas are not comparable with post-HSE directorates, although the community health services programme includes many of the services that are currently provided under the aegis of the PCRS.

% change refers to real expenditure growth over the period 2000-2004.

Sources: DoHC, 1999, 2006

**TABLE A6.4**  
Whole Time Equivalents (WTEs) by Pay Expenditure Category, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	% change 00-06	% change 07-09
Management/Administration	12,366 (15.4)	14,714 (16.3)	15,690 (16.4)	15,766 (16.3)	16,157 (16.4)	16,699 (16.4)	17,262 (16.2)	18,043 (16.2)	17,967 (16.2)	17,611 (16.0)	39.6	-2.4
Medical/Dental	5,698 (7.1)	6,285 (7.0)	6,775 (7.1)	6,792 (7.0)	7,013 (7.1)	7,266 (7.1)	7,712 (7.3)	8,005 (7.2)	8,109 (7.3)	8,083 (7.4)	35.3	1.0
Nursing	29,177 (36.4)	31,429 (34.8)	33,395 (34.9)	33,766 (35.0)	34,313 (34.8)	35,248 (34.6)	36,737 (34.6)	39,006 (35.0)	38,108 (34.3)	37,466 (34.1)	25.9	-3.9
Other Health and Social Care Professionals	7,613 (9.5)	9,228 (10.2)	12,577 (13.1)	12,692 (13.2)	12,830 (13.0)	13,952 (13.7)	14,913 (14.0)	15,705 (14.1)	15,980 (14.4)	15,973 (14.6)	95.9	1.7
General Support/Other Patient and Client Care	25,216 (31.5)	28,645 (31.7)	27,242 (28.5)	27,485 (28.5)	28,410 (28.8)	28,812 (28.3)	29,649 (27.9)	30,746 (27.6)	30,861 (27.8)	30,620 (27.9)	17.6	-0.4
<b>Total Whole Time Equivalents</b>	<b>80,070</b> <b>(100)</b>	<b>90,301</b> <b>(100)</b>	<b>95,679</b> <b>(100)</b>	<b>96,501</b> <b>(100)</b>	<b>98,723</b> <b>(100)</b>	<b>101,978</b> <b>(100)</b>	<b>106,273</b> <b>(100)</b>	<b>111,505</b> <b>(100)</b>	<b>111,025</b> <b>(100)</b>	<b>109,753</b> <b>(100)</b>	<b>32.7</b>	<b>-1.6</b>

Notes: Percentage of total WTEs in parentheses.

2009 refers to the situation at end of December 2009.

Figures exclude staff on career breaks and home helps.

The 'general support' and 'other patient and client care' categories were not separately identified prior to 2001; they are therefore combined to enable comparison over time.

From March 2007, a change in methodology resulted in the inclusion of certain posts and grades not previously counted, as well as agencies subsumed into the HSE (CSO, 2009; DoHC, personal communication; 30 June 2010). For that reason, it is not accurate to make a direct comparison between pre- and post-2007 figures.

Sources: DoHC, 2009; HSE, 2010

**TABLE A6.5**  
Reports on Pharmacy Services in Ireland, 2003-2009<sup>a</sup>

Title (Year)/ Author/Chair	Commissioned by	Terms of Reference	Main Recommendations <sup>b</sup>	Policy Changes since Publication
Report of the Pharmacy Review Group (2003)  <i>Michael Mortell</i> (Chair)	Minister for Health and Children	<p>'In the context of regulatory reform in Ireland and the vital role played by pharmacies in the health service, to review the Pharmacy Regulations with a view to:</p> <ol style="list-style-type: none"> <li>facilitating the provision, maintenance and development of a high quality pharmacy service to service recipients; maximising the potential to increase competition within the sector with a view to ensuring lower prices and improved services to the consumer as envisaged in the OECD Report on Regulatory Reform in Ireland;</li> <li>assessing and responding to the recommendations in the OECD Report on restrictions on the location of pharmacies while ensuring, in so far as is possible, a reasonable spread of pharmacies so that the service is convenient to the consumer;</li> <li>assessing and responding to the recommendations in the OECD Report on the current restrictions on pharmacists educated in other EU countries with a view to enabling this country to discontinue the derogation incorporated in Article 2.2 of Council Directive 85/433/EEC on the free movement of pharmacists;</li> <li>ensuring a high quality pharmacy service in remote and deprived areas (to include an assessment of the dispensing doctor scheme);</li> <li>ensuring that the opening hours of pharmacies facilitate consumers and meet all reasonable health needs of the population in its area;</li> <li>assessing the extent to which the 1996 Regulations (together with the Community Pharmacy Contract) have achieved their objectives in regard to locating new- taking full account of pharmacy regulation in other jurisdictions;</li> <li>taking full account of the wider regulatory framework in which pharmacy operates; considering how a universal service and public service obligation can be identified and met and assessing any funding</li> </ol>	<ol style="list-style-type: none"> <li>A supervising pharmacist should have at least 3 years community or other relevant pharmacy experience, including at least 6 months post-registration community pharmacy experience.</li> <li>Contracts should be non-transferable ie not tradable and specific to that contractor and address.</li> <li>A contractor should undergo a review/performance assessment, by or on behalf of the health board, at least every 5 years. Compliance with contract conditions should be enforced by the health board, with a range of appropriate sanctions.</li> <li>Pharmacies should prominently display a quality service charter, including Clause 9 of the pharmacy contract and other contractual quality service requirements, opening hours and out of hours arrangements.</li> <li>There should be increased pricing transparency at point of sale, including advising of prescription prices in advance of supply and the price of all dispensed items on labels. Health boards should identify, through a needs assessment, any areas with a significant pharmacy need (including areas served by dispensing doctors) which the market has not filled and is unlikely to do so.</li> <li>Where a needs assessment identifies such an area and where an unincorporated contract has been offered but not taken up, the health board may offer an incentivised contract for that area, on a full-time, continuous service basis. Contracts should be awarded by competitive tender, on the basis of service level and standards.</li> <li>Where a full-time incentivised contract is not feasible (ie no incentivised contract is taken up within a reasonable period), an auxiliary pharmacy contract, incentivised if necessary, may be made available to fulfil the area's needs. Auxiliary contracts should be awarded by competitive tendering, on the basis of service level and standards. An auxiliary contractor will provide pharmacy services by a qualified supervising pharmacist from a designated fixed premises, in accordance with the usual regulatory and contractual requirements, at defined times only. Health boards should review the quality of the pharmacy services delivered from auxiliary contracts on a regular basis, but at least every 2 years. Quality reviews should be carried out with reference to the Pharmaceutical Society of Ireland and its statutory role in the assurance of professional practice standards.</li> <li>Health boards should review auxiliary pharmacy contracts on a regular basis (at least every five years) to determine if they can be replaced with a full-time, continuous and permanent pharmacy service. Where the health board receives an application to provide a full-time, continuous and permanent pharmacy service to replace the auxiliary service, it should conduct the review at that time.</li> <li>Health boards should review all incentivised pharmacy contracts on a regular basis (at least every five years) to determine if incentives are still required.</li> <li>Incentive options might include: differential remuneration scheme (budget neutral) such as weighted fees for marginal pharmacies or a universal sliding fee scale; exclusive contract for a finite period not exceeding 5 years and subject to review; tax concessions; establishment or other grants.</li> <li>Contractors must provide a full pharmaceutical service under their contract, as defined in the new pharmacy act, subject to the conditions of an auxiliary contract.</li> <li>There should be no beneficial ownership or business interest of any kind between dispensing and prescribing.</li> <li>Group practices and pharmacies: contracted pharmacies and general practices should occupy discrete premises, with separate entrances.</li> </ol>	

Title (Year)/ Author/Chair	Commissioned by	Terms of Reference	Main Recommendations <sup>b</sup>	Policy Changes since Publication
		<p>consequences which may arise.</p> <p>10. In conducting the review the Group is to consult widely with all interests involved and, in particular, consumer interests<sup>1</sup>.</p>	<p>(xvi) Any pharmacy can hold a contract, subject to quality and service standards and with a restriction on the number of community pharmacy contracts that can be held by a single entity in any one health board area.</p> <p>(xvii) A single entity may hold up to 8 per cent of the total number of community pharmacy contracts in each health board area and any contracts above this must be matched by the operation of contracts in CEO-designated areas with a significant unmet pharmacy need, without incentives.</p> <p>(xviii) The Minister for Health and Children should take interim measures immediately to implement the 8 per cent limit on the number of contracts that may be held in a health board area.</p> <p>(xix) The use of the EU derogation should continue until a pharmacy act, to include the provisions set out below, is in place and then be discontinued. The pharmacy act should be in place within 18 months of the date of this report.</p> <p>(xx) This model should be reviewed in 5 years.</p>	
<p>Commission on Financial Management and Control Systems in the Health Service (2003)</p> <p><i>Niamh Brennan (Chair)</i></p>	<p>Minister for Health and Children</p>	<p>(i) Examine the various financial management systems and control procedures currently operated in the Department of Health and Children and by the key budget holders in the health boards and in the main spending and service areas of the health sector.</p> <p>(ii) Assess the various reporting procedures in these services.</p> <p>(iii) Assess the capacity of the systems and procedures to provide relevant, timely and reliable information, in relation to:</p> <ul style="list-style-type: none"> <li>- current expenditure</li> <li>- capital expenditure with particular reference to</li> <li>- the measurement of resource use against outcomes and</li> <li>- management of resources within budgets.</li> </ul> <p>(iv) Evaluate the capacity of these systems to develop cost consciousness among resource managers and to provide incentives to manage cost effectively.</p> <p>(v) Examine international best practice in regard to health service financial management systems, cost control and reporting arrangements.</p> <p>(vi) Examine how the estimates in the health area are compiled and allocations finalised and monitored.</p> <p>(vii) Consider how the presentation of financial data can be enhanced so as to provide better information on how service delivery is proceeding.</p> <p>(viii) Make recommendations in accordance with its findings, with a view to enhancing the timeliness and quality of financial management information throughout the health services and provided to</p>	<p>1. Current arrangements for reimbursing pharmacists under the medical card scheme – i.e. reimbursement on a cost of ingredients basis (without mark-up) plus a flat-rate prescription fee – should be extended to the Drugs Payment (DP) Scheme.</p> <p>2. The operation of the DP Scheme should be reviewed immediately by the Department of Health and Children, in consultation with the Department of Finance, the GMS (Payments) Board and the health boards. The review should actively examine:</p> <ul style="list-style-type: none"> <li>(i) Introducing a system whereby health boards would actively monitor and evaluate prescribing patterns by individual GPs, Consultants or Dentists and reimbursement patterns by individual pharmacists, having regard to relevant demographic and epidemiological factors;</li> <li>(ii) Introducing incentive schemes for reducing levels of prescribing and drugs costs;</li> <li>(iii) In recognition of the influence of hospital generated prescribing on community drugs budgets, each health board/hospital CEO should immediately establish Drugs and Therapeutics Committees, comprising Consultants, GPs from the hospital catchment area, supported by pharmacy and financial management expertise, to agree clinically cost-effective common drug formulary; and</li> <li>(iv) Relevant international experience and the lessons from this in containing drug costs and the rate of growth</li> </ul> <p>3. The existing agreement between the Department of Health and Children and the Irish Pharmaceutical Healthcare Association should be evaluated against international experience with similar agreements (particularly in countries of the European Union). The results of this evaluation should be used in the negotiation of any further agreement so as to assure value for money.</p> <p>4. The Irish Medicines Board should have its remit extended to not just examine new drugs for their efficacy and effectiveness, but also to:</p> <ul style="list-style-type: none"> <li>(i) Assess their cost effectiveness; and</li> <li>(ii) Approve the drug product for reimbursement under the community drugs schemes (including specifying the conditions under which it may be made available, for example restricted to named patients or in respect of defined clinical treatment regimes).</li> </ul> <p>5. The Irish Medicines Board should also be charged with the responsibility to monitor the continuing effectiveness of existing drugs and to delist those which are no longer considered appropriate or clinically cost-effective.</p> <p>6. Where the Irish Medicines Board determines that a cheaper, but equally effective, alternative exists, only the cost of the cheaper drug should be reimbursed by the GMS (Payments) Board. Where a GP prescribes the more expensive branded drug, the cost difference arising should be regarded as entirely private prescribing.</p>	<p>The retail mark-up on the DP Scheme was reduced from 50 per cent to 20 per cent as of 01 August 2009.</p> <p>Now carried out by the National Centre for Pharmacoeconomics (NCPe).</p> <p>Now carried out by the NCPe.</p>

Title (Year)/ Author/Chair	Commissioned by	Terms of Reference	Main Recommendations <sup>b</sup>	Policy Changes since Publication
Review of Governance and Accountability Mechanisms in the General Medical Services Schemes (2003)  <i>Deloitte and Touche</i>	Department of Health and Children	<p>Departments.</p> <p>The scope of our work is as set out as follows:</p> <ul style="list-style-type: none"> <li>(i) To analyse the governance and accountability mechanisms in the General Medical Services (GMS) Schemes and payments made by the GMS (Payments) Board on behalf of Health Boards,</li> <li>(ii) To examine the roles and responsibilities of the Department of Health and Children, the Eastern Regional Health Authority/Health Boards and the GMS (Payments) Board in this context,</li> <li>(iii) To examine the underlying reasons for increasing cost trends in the GMS Scheme,</li> <li>(iv) To validate the estimated outturn for 2002 and assess its implications going forward</li> <li>(v) To make recommendations for the immediate resolution of any identified weaknesses and inadequacies.</li> </ul>	<ul style="list-style-type: none"> <li>(i) The requirement to assess whether the LTI should be merged into the GMS.</li> <li>(ii) The need to cap annual payments under the IDTS, at an agreed budget amount.</li> <li>(iii) The need to urgently amend or indeed cease the Advance Drawdown of Monies under the IDTS to limit financial exposures in this area.</li> <li>(iv) The need to evaluate the cost/benefits of the extension of the GMS to all over 70s, particularly in light of the significant current and prospective costs associated with this extension.</li> <li>(v) The requirement to amend the basis of remunerating pharmacists under the DPS and LTI to a fee for service basis and not a mark up on ingredient costs.</li> <li>(vi) The requirement to establish protocols for drugs prescribing and to monitor prescription data at GP level to ensure appropriate and effective prescribing patterns.</li> <li>(vii) The requirement for medical technology appraisal on an ongoing basis.</li> <li>(viii) GPs and other primary care contractors should be required to take on an appropriate form of budget holding responsibilities and be accountable for their actions relative to the budget.</li> </ul>	<p>IDTS suspended in 2005.</p> <p>Automatic entitlement to GMS for those over 70 years discontinued from 01 January 2009.</p>
Review of Pharmacy Wholesale Margins (2007)  <i>Indecon</i>	Health Service Executive	<p>Assist the HSE Negotiation Team in identifying a realistic cost for the provision of pharmaceutical wholesale distribution services. This would lead to the establishment of a new fee or rate.</p>	<p>This report outlined a number of options for setting a wholesale margin</p> <ul style="list-style-type: none"> <li>- continue with current rate and practice</li> <li>- no price regulation of wholesale or retail margins</li> <li>- price regulation of retail margins only</li> <li>- introduce flat rate related to current market conditions</li> <li>- introduce a sliding fee related to the value of products</li> </ul>	<p>The wholesale mark-up was to be reduced from 17.66 per cent to 8 per cent from 01 January 2008 and to 7 per cent of the ex-factory price from 01 January 2009. However, legal issues arose and this change was suspended in September 2008. From 01 July 2009, the wholesale mark-up was reduced to 10 per cent.</p>



Title (year)/ Author/Chair	Commissioned by	Terms of reference	Main Recommendations	Policy Changes since Publication								
Report of the Independent Body on Pharmacy Contract Pricing (2008)  <i>Dorgan, Sean (Chair)</i>	Minister for Health and Children	To advise the Minister on an appropriate level of dispensing fee to be paid to community pharmacists for existing services under the GMS and community drugs schemes. The €5 per item fee offered in the interim Community Pharmacy Contract was to be given consideration. <sup>b</sup>	<p>Rather than a single flat dispensing fee a sliding dispensing fee structure was recommended for the reimbursement of pharmacists on the community drugs schemes</p> <table border="1"> <thead> <tr> <th>Number of items dispensed per annum</th> <th>Fee per item</th> </tr> </thead> <tbody> <tr> <td>Up to 20,000 items</td> <td>€7.00</td> </tr> <tr> <td>20,001 to 30,000 items</td> <td>€6.50</td> </tr> <tr> <td>Over 30,000 items</td> <td>€6.00</td> </tr> </tbody> </table>	Number of items dispensed per annum	Fee per item	Up to 20,000 items	€7.00	20,001 to 30,000 items	€6.50	Over 30,000 items	€6.00	A sliding fee structure was introduced in July 2009 at lower rates than those proposed. The retail mark-up on the DP, LTI, EEA and HAA schemes remained in place but was reduced from 50 per cent to 20 per cent. See Figure 12.1 in Chapter 12.
Number of items dispensed per annum	Fee per item											
Up to 20,000 items	€7.00											
20,001 to 30,000 items	€6.50											
Over 30,000 items	€6.00											
<i>Barry, Michael (Chair)</i>	Minister for Health and Children	<ol style="list-style-type: none"> <li>To recommend efficiencies and savings in drug costs under the GMS and CDS whether through more rational and cost-effective prescribing at GP level or otherwise.</li> <li>To advise on the information and educational or training initiatives, or standards and protocols, that might be put in place to support more efficient and cost effective prescribing.</li> <li>To identify areas where over use or inappropriate use of certain drugs could be reduced or eliminated.</li> <li>To consider the capacity for increased generic prescribing by GPs.</li> </ol>	<ol style="list-style-type: none"> <li>The IPHA/HSE agreement should be monitored on an ongoing basis and the development of analytical capacity for this purpose should be a priority.</li> <li>A cost-effectiveness analysis should be conducted for products reimbursed under the community drugs schemes where available evidence queries the value for money associated with such products and reimbursement should be reconsidered following assessment. In view of the current IPHA/HSE agreement initial savings in the region of €5m may be achieved with another €5m over the coming years.</li> <li>The reimbursement status of products such as clinical nutritional products, glucosamine and therapies under the DP Scheme should be considered, mindful of the IPHA agreement (€10m per annum). Consideration should be given to separate reimbursement lists for the GMS and DP schemes.</li> <li>Patients should be better informed in relation to the pricing of medicines and the information that accompanies medications so that they may play a role in optimising value for money and reducing wastage.</li> <li>The ex-factory price for generic preparations should be reviewed with consideration given to the introduction of a price considerably below the price of the relevant proprietary product (at 20 per cent to 30 per cent below current price, €15m to €20m per annum).</li> <li>Generic prescribing by general practitioners should be encouraged and facilitated by prescription software systems, prescription data analysis and professional prescribing advice and support (at current generic pricing, €10m per annum).</li> <li>There should be feedback to GPs in relation to quality prescribing indicators. Further development and expansion of the new prescribing analysis reporting system will facilitate same (€15m per annum). Incentivising GPs to enhance quality and cost-effective prescribing using quality prescribing indicators should be considered.</li> <li>Medicines use reviews should be considered in an attempt to improve compliance and health outcomes as well as reducing wastage associated with prescription drugs.</li> <li>In view of the influence of hospital prescribing on drug expenditure in the community the HSE should develop continuity across hospital and community prescribing.</li> <li>The HSE should continue its consideration of wholesaler margins and payments to pharmacies with a view to achieving value for money from the community drugs schemes.</li> <li>Audit and inspection procedures should be reviewed to ensure that they are robust and comprehensive enough to validate any state expenditure on any part of the medicines supply chain.</li> </ol>	Recommendation 10 was addressed in the Health Professionals (Reduction of Payments to Community Pharmacy Contractors) Regulations 2009.								

Title (year)/ Author/Chair	Commissioned by	Terms of reference	Main Recommendations	Policy Changes since Publication
Report of the Special Group on Public Service Numbers and Expenditure Programmes (2009)  <i>McCarthy, Colm (Chair)</i>	Minister for Finance	<ol style="list-style-type: none"> <li>review the scope for reducing or discontinuing Expenditure Programmes with a view to eliminating the current budget deficit by 2011.</li> <li>analyse and make recommendations on reducing the numbers employed in each area of the Public Service</li> <li>make recommendations on reallocation of staffing or expenditure resources between public service organisations as appropriate to deliver the objectives set out in the Programme for Government.</li> <li>examine and make recommendations for further rationalisation of state agencies beyond the rationalisation proposals and principles set out in Budget 2009.</li> </ol>	<p><i>Primary Care</i></p> <p>In the area of Primary Care the group identified savings of €577m in a full year. It is recommended that:</p> <ul style="list-style-type: none"> <li>the income guidelines for the medical card be revised to the basic rate of social welfare (Jobseekers Allowance) and that all existing non-medical allowances and HSE discretion be removed and replaced with a set of clearly defined factors based on medical needs.</li> <li>the existing entitlement of a person who has been unemployed for a minimum of 12 months to retain their medical card for 3 years after commencing employment (irrespective of means or medical need) be reduced to 1 year.</li> <li>the HSE intensifies and maintains its recent efforts to improve the accuracy of its GMS medical card database register in order to avoid any overpayment of GP capitation fees and to improve its overall control processes governing the accuracy and probity of payments made to GPs, community pharmacists and other independent contractors. The potential outsourcing of this work should also be examined actively along with the potential to link the database to the Death Register database [€100.0m].</li> <li>the threshold for the DP Scheme be increased to €125 [€37.0m].</li> <li>a co-payment of €5 for each prescription under the GMS and LTI be introduced [€70.0m].</li> <li>tenders by open competition to provide services under the GMS be introduced [€370.0m].</li> </ul> <p><i>Generic prescribing in hospitals</i></p> <p>The group recommends the HSE introduce mandatory protocols requiring publicly funded hospitals and clinicians to prescribe generic medicines, off-patent drugs which also take into account the knock-on impact on prescribing of drugs by GPs, who are generally reluctant to change hospital consultant prescriptions. The Group considers that these actions in conjunction with a combination of centralised procurement and better management of stock, its use and wastage, should yield savings of €30m a year.</p>	<p>Increased to €120 in Budget 2010.</p> <p>A co-payment of 50c per prescription item up to a monthly ceiling of €10 per family Department of Finance, 2010. New legislation is required to give effect to the co-payment and the legislation is expected to be finalised in the current Dáil term.</p> <p>One recent example is the tendering process for the cervical cancer vaccine (see Section 12.4.2 in Chapter 12).</p>

Notes:

The recommendations outlined here are those arising from the various publications that relate directly to the issues discussed in Chapter 12, i.e. those relating to PCRS expenditure on the GMS and CDS.

<sup>a</sup> The recent working group report 'Proposed Model for Reference Pricing and Generic Substitution', published in June 2010 (DoHC, 2010a), is not included here (but is discussed in Chapter 12).

<sup>b</sup> An Interim Community Pharmacy Contract was offered by the HSE to pharmacists in 2008 pending the finalisation of a new pharmacy contract in response to their concern at the reduction of wholesale margins in 2008. It offered a flat dispensing fee of €5 per item for the GMS, DP, LTI, EEA and HAA schemes and removed the retail mark-up available on items under the DP, LTI, EEA and HAA schemes. The contract offer was voluntary and there was no uptake.

Sources: Brennan, 2003; Deloitte and Touche, 2003; Mortell, 2003; Indecon, 2007; Barry *et al.*, 2008; Dorgan, 2008; McCarthy, 2009

**TABLE A6.6**

International Approaches to Pharmaceutical Cost-Sharing

Country	Out-of-Pocket Payments	Mechanisms for Vulnerable Groups									
Australia	<p>From 01 January 2010, patients pay up to AU\$33.30 for most Pharmaceutical Benefits Scheme (PBS) medicines or AU\$5.40 if they have a concession card (holders of pensioner and other entitlement cards). The Australian Government pays any additional cost of drugs exceeding patient co-payments up to the dispensed price, excluding any delivery or after hours fee, brand or therapeutic group premium, or special patient contribution that may be applicable.</p>	<p>Lower co-payments for those with a concession card. There are also safety net provisions for a reduction in the patient co-payment contribution once a family exceeds a certain threshold on PBS subsidised medications in a calendar year.</p> <table border="1"> <thead> <tr> <th>Patient Co-payment before Safety Net</th> <th>Patient Co-payment post Safety Net</th> <th>Safety Net Threshold</th> </tr> </thead> <tbody> <tr> <td> <p>General patient: AU\$32.90 for PBS drugs up to AU\$33.30, the PBS dispensed price, plus an additional AU\$1.05 fee (from 01 August 2009) for recording safety net expenditure on the Patient Record Form, plus an optional pharmacy charge of AU\$3.83 or less such that the total charge does not exceed the patient copayment, plus any delivery or after hours fee, brand or therapeutic group premium, or special patient contribution that may be applicable.</p> <p>Concessional patient: AU\$5.40 plus any delivery or after hours fee, brand or therapeutic group premium, or special patient contribution that may be applicable.</p> </td> <td>AU\$5.40</td> <td>AU\$ 1,281.30</td> </tr> <tr> <td></td> <td>Nil</td> <td>AU\$324</td> </tr> </tbody> </table>	Patient Co-payment before Safety Net	Patient Co-payment post Safety Net	Safety Net Threshold	<p>General patient: AU\$32.90 for PBS drugs up to AU\$33.30, the PBS dispensed price, plus an additional AU\$1.05 fee (from 01 August 2009) for recording safety net expenditure on the Patient Record Form, plus an optional pharmacy charge of AU\$3.83 or less such that the total charge does not exceed the patient copayment, plus any delivery or after hours fee, brand or therapeutic group premium, or special patient contribution that may be applicable.</p> <p>Concessional patient: AU\$5.40 plus any delivery or after hours fee, brand or therapeutic group premium, or special patient contribution that may be applicable.</p>	AU\$5.40	AU\$ 1,281.30		Nil	AU\$324
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	Nil	AU\$324									
Canada	<p>Depending on region and drugs plans. Co-payment is the most common form of patient cost-sharing in public drug plans. Total out-of-pocket spending amounts are sometimes capped. Deductibles are also frequently used. Enrolees sometimes have to pay pharmacists fees. Cost-sharing requirements tend to be set at higher levels, as compared to private employer-sponsored plans.</p>	<p>Depending on region and drugs plans</p>									
Germany	<p>Percentage co-payment of 10 per cent with a minimum of €5 and a maximum of €10 (however, pharmaceuticals priced 30 per cent below their reference price are exempt from co-payments).</p>	<p>Children below age of 18 are excluded from co-payment. Annual co-payment ceiling fixed at 2 per cent of income or 1 per cent of income (chronic conditions).</p>									
Ireland	<p>Deductible of €120 per month under the DP Scheme.</p>	<p>Specific schemes with free access to pharmaceuticals (no co-payments), e.g. for people with low income (GMS Scheme), certain long-term conditions (LTI Scheme) etc.</p>									
Netherlands New Zealand	<p>Co-payment under the Reference Price Scheme. Patients are required to pay prescription charges on each subsidised item. In most cases the majority of eligible people pay NZ\$3 for subsidised medicines. Currently the maximum prescription charge is NZ\$15. If a medicine is only partially subsidised, the patient is required to meet the difference between the subsidy and price in addition to the relevant co-payment.</p>	<p>Fiscal compensatory arrangements for low income groups. Patients pay lower amounts depending on age (patients under 6 years of age receive free medicines) and income. If a family has more than 20 prescriptions within a year they will be issued with a Pharmaceutical Subsidy Card and the charge falls to between NZ\$0 and NZ\$2 (free items (i.e. for under 6's) do not count towards the 20).</p>									
Sweden	<p>Percentage co-payment rates, decreasing with rising pharmaceutical expenditure and no co-payment above a maximum limit deductible of €97 annually.</p>	<p>Maximum limit of €194 per 12 months. Children under 18 years of age within a family unit are considered as one beneficiary and their costs are pooled together.</p>									

Country	Out-of Pocket Payments	Mechanisms for Vulnerable Groups
United Kingdom	<p>England: prescription fee of £7.20 (01 April 2009). Northern Ireland: prescription fee of £3.00 (01 January 2009) and has been abolished from 01 April 2010.</p>	<p>Large population groups exempted from prescription fees<sup>a</sup>:</p> <ul style="list-style-type: none"> <li>- are under 16, are aged 16, 17 or 18 in full-time education, or are aged 60 or over</li> <li>- are pregnant, or have had a baby in the previous 12 months and have a valid exemption certificate</li> <li>- have a listed medical condition and have a valid exemption certificate</li> <li>- have a continuing physical disability which means you cannot go out without help from another person and have a valid exemption certificate</li> <li>- are an NHS in-patient</li> <li>- get or are included in an award of someone getting Income Support, Income-based Jobseeker's Allowance (Incapacity Benefit or Disability Living Allowance do not count, as they are not income related), Income-related Employment and Support Allowance or Pension Credit Guarantee Credit</li> <li>- are entitled to, or named on, a valid NHS tax credit exemption certificate or are named on a valid HC2 certificate</li> <li>- have a valid war pension exemption certificate and the prescription is for your accepted disablement.</li> </ul> <p>Certain medications are supplied for free (e.g. prescribed contraceptives).</p> <p>Limit of prescription fee by purchase of a three months prescription pre-payment certificate of £28.25 or an annual prescription pre-payment certificate of £104 (01 April 2009).</p> <p>Vary widely by health-care plan</p>
United States	Vary widely by health-care plan.	

Note: <sup>a</sup> It was estimated that 92 per cent of prescriptions in England in 2005/2006 carried no charge (Gravelle *et al.*, 2008).

Sources:

Australia: [www.health.gov.au/internet/main/publishing.nsf/Content/health-pbs-general-pbs-whopays.htm](http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pbs-general-pbs-whopays.htm) [last accessed 02 February 2010].

Canada: Paris *et al* (2007); a detailed comparison of provincial and territorial drug subsidy programs can be found in CIHI (2009).

Germany, Netherlands & Sweden: Adapted from Vogler *et al.* (2008)

Ireland: Vogler *et al.* (2008) and updated to reflect recent changes

New Zealand: [www.moh.govt.nz/moh.nsf/indexmh/yourhealth-payments](http://www.moh.govt.nz/moh.nsf/indexmh/yourhealth-payments) [last accessed 24 November 2009]; PHARMAC, personal communication [09 December 2009]

UK: Vogler *et al.* (2008) and updated to reflect recent changes

**TABLE A6.7**  
Composition of Public Health Employment (%), 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Ireland<sup>a,b</sup></b>										
Medical/Dental	7.1	6.9	7.1	6.9	7.0	7.0	7.1	6.8	6.9	7.0
Nursing	36.9	35.4	35.3	34.8	35.1	34.9	34.8	35.2	34.5	34.4
Health and Social Care Professionals	9.3	10.0	12.8	12.6	12.7	13.2	13.6	13.7	14.0	14.2
Management/Administration	14.9	15.7	15.8	15.4	15.8	15.8	15.8	15.8	15.8	15.7
General Support/Other Patient and Client Care <sup>c</sup>	31.7	32.1	29.0	30.5	29.3	29.0	28.7	28.5	28.6	28.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>England<sup>b</sup></b>										
Doctors	8.7	8.6	8.5	8.6	8.8	9.0	9.4	9.6	9.8	9.8
Qualified Nursing Staff	30.0	30.0	30.0	30.1	29.8	29.6	29.8	30.0	29.8	29.1
Qualified Scientific, Therapeutic & Technical Staff	9.5	9.4	9.5	9.5	9.7	9.8	10.0	10.3	10.4	10.4
Qualified Ambulance Staff	1.3	1.3	1.3	1.2	1.3	1.3	1.2	1.3	1.3	1.3
Support to Clinical Staff (incl. GP practice support)	27.5	27.9	28.1	28.1	27.7	27.5	26.7	26.0	25.9	26.4
NHS Infrastructure Support	22.9	22.6	22.5	22.5	22.7	22.6	22.8	22.7	22.8	22.9
Other Non-Medical Staff	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Notes: <sup>a</sup> As noted in Table A6.4, from March 2007, a change in methodology resulted in the inclusion of certain posts and grades not previously counted, as well as agencies subsumed into the HSE (CSO, 2009; DoHC, personal communication; 30 June 2010). For that reason, it is not accurate to make a direct comparison between pre- and post-2007 figures for Ireland.

<sup>b</sup> Data for Ireland refer to actual headcount in December of the relevant year; data for England refer to actual headcount on 30 September of the relevant year.

<sup>c</sup> General support includes maintenance/technical services (categories which are aggregated by the HSE for the presentation of employment figures), as well as those engaged in 'other patient and client care' (which are not separately identified prior to 2001).

Sources: Ireland: calculated from HSE, personal communication [02 July 2010]

England: calculated from

[www.ic.nhs.uk/webfiles/publications/workforce/nhsstaff9909/NHS\\_Staff\\_1999\\_2009\\_Master\\_Table.xls](http://www.ic.nhs.uk/webfiles/publications/workforce/nhsstaff9909/NHS_Staff_1999_2009_Master_Table.xls)

[last accessed 22 April 2010]

**TABLE A6.8**  
Staff Nurse

	HSE	NHS																																				
Trade union(s):	<b>Staff Nurse</b> <sup>a,1</sup> Irish Nurses Organisation – IMPACT – SIPTU – Psychiatric Nurses Association	<b>Nurse (Other 1st Level 'Acute, Elderly &amp; General')</b> <sup>b,2</sup> Royal College of Nursing – Unison – Unite																																				
No of employees (WTEs) in grade:	16,526.22 staff nurses (general) <sup>c</sup> (HSE, 2009a)	England 95,305 <sup>d</sup> Northern Ireland 5,997.7 <sup>e</sup>																																				
Salary Scale:	€30,234 – 31,710 – 33,189 – 34,666 – 36,137 – 37,408 – 38,683 – 39,952 – 41,222 – 42,469 – 43,800 (Long Service Increment after 3 yrs on max)	Under Agenda for Change the majority of nurses <sup>f</sup> were allocated to pay band 5: £21,176 – 21,798 – 22,663 – 23,563 – 24,554 – 25,472 – 26,483 – 27,534 (at 01/04/10)																																				
Hours of work:	37.5 hours Most on this grade are required to work a shift system covering 24 hours per day, 365 days per year.	37.5 hours Most on this grade are required to work a shift system covering 24 hours per day, 365 days per year.																																				
Premium payments, over-time, on-call, & call-out:	<p><i>Premium payments:</i></p> <table border="1"> <thead> <tr> <th></th> <th>Value of enhancements as percentage of basic pay</th> </tr> </thead> <tbody> <tr> <td>Hours between 18:00 – 20:00 or to the end of the day as part of a standard working week</td> <td>+16.66%</td> </tr> <tr> <td>Night duty – only payable to employees who work through the night i.e. at least 3 hours between midnight and 07:00.</td> <td>+25%</td> </tr> <tr> <td>Saturdays</td> <td>€15.30</td> </tr> <tr> <td>Sunday &amp; public holidays</td> <td>+100%</td> </tr> </tbody> </table> <p><i>Over-time:</i></p> <table border="1"> <thead> <tr> <th></th> <th>Value of enhancements as percentage of basic pay</th> </tr> </thead> <tbody> <tr> <td>Monday to Friday</td> <td>+50%</td> </tr> <tr> <td>Saturdays</td> <td>+100%</td> </tr> <tr> <td>Sunday &amp; public holidays</td> <td>+100%</td> </tr> </tbody> </table>		Value of enhancements as percentage of basic pay	Hours between 18:00 – 20:00 or to the end of the day as part of a standard working week	+16.66%	Night duty – only payable to employees who work through the night i.e. at least 3 hours between midnight and 07:00.	+25%	Saturdays	€15.30	Sunday & public holidays	+100%		Value of enhancements as percentage of basic pay	Monday to Friday	+50%	Saturdays	+100%	Sunday & public holidays	+100%	<p><i>Premium payments (unsocial hours) for pay band 5<sup>h,1</sup>:</i></p> <table border="1"> <thead> <tr> <th></th> <th>Value of enhancements as percentage of basic pay</th> </tr> </thead> <tbody> <tr> <td>All time on Saturday (midnight to midnight) and any week day after 8pm and before 6am</td> <td>+ 30%</td> </tr> <tr> <td>All time on Sundays and Public Holidays (midnight to midnight)</td> <td>+ 60%</td> </tr> </tbody> </table> <p>Premium payments are worked out on basic salary. This includes any long term recruitment and retention premia. It does not include short-term recruitment and retention premiums, high cost area supplements or any other payment.</p> <p>Where a continuous night shift or evening shift on a weekday (other than a public holiday) includes hours outside the period of 20:00 and 06:00, the 30% enhancement should be applied to the whole shift if more than half of the time falls between 20:00 and 06:00.</p> <p>Staff will only receive one rate of percentage enhancement for each hour worked.</p> <p><i>Over-time:</i></p> <p>Any extra time worked in a week, above standard hours, will be treated as overtime. Overtime at time and a half (bands 1-7) with the exception of the eight general public holidays which is paid at double time. Overtime payments will be based on the hourly rate provided by basic pay plus any long-term recruitment and retention premia.</p> <p><i>On-call allowance (where applicable)</i></p> <table border="1"> <thead> <tr> <th>Frequency of on-call</th> <th>Value of enhancements as percentage of basic pay</th> </tr> </thead> <tbody> <tr> <td>1 in 3 or more frequent</td> <td>9.5%</td> </tr> <tr> <td>1 in 6 or more but less than 1 in 3</td> <td>4.5%</td> </tr> <tr> <td>1 in 9 or more but less than 1 in 6</td> <td>3.0%</td> </tr> <tr> <td>1 in 12 or more but less than 1 in 9</td> <td>2.0%</td> </tr> <tr> <td>Less frequent than 1 in 12</td> <td>By local agreement</td> </tr> </tbody> </table>		Value of enhancements as percentage of basic pay	All time on Saturday (midnight to midnight) and any week day after 8pm and before 6am	+ 30%	All time on Sundays and Public Holidays (midnight to midnight)	+ 60%	Frequency of on-call	Value of enhancements as percentage of basic pay	1 in 3 or more frequent	9.5%	1 in 6 or more but less than 1 in 3	4.5%	1 in 9 or more but less than 1 in 6	3.0%	1 in 12 or more but less than 1 in 9	2.0%	Less frequent than 1 in 12	By local agreement
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Availability of allowance in the nature of pay:	<p><i>Specialist Qualification Allowance:</i> Payable to nurses employed directly on duties in specialist areas appropriate to their qualifications - €2,791.</p> <p><i>Location Allowance</i> for nurses engaged in the following duties: ED, Theatre/OR, Intensive Care Units, Cancer/Oncology Units, Geriatric Units/Long-Stay Hospitals or Units in county Homes, Secure Units in Mental Health Services, Units for the Severe &amp; Profoundly Handicapped in Mental Handicapped Services, Acute Admissions Unit in Mental Health</p>	<p><i>Recruitment and retention premia:</i> under Agenda for Change, additional payments may be made to an individual post or specific groups of posts where market pressures would otherwise prevent the employer from being able to recruit and retain staff.</p> <ul style="list-style-type: none"> <li>- short-term recruitment and retention premia will not be pensionable and will usually be awarded for a time-limited period.</li> <li>- long-term recruitment and retention premia will be pensionable and will be taken into account when calculating the level of unsocial hours payments, on-call payments, overtime and high cost area payments</li> </ul>																																				

HSE	HSE	NHS								
<p><b>Staff Nurse<sup>a,1</sup></b> Services - €1,858</p> <p>A staff nurse may only benefit from one or other of these allowances.</p>		<p><b>Nurse (Other 1st Level 'Acute, Elderly &amp; General')<sup>b,2</sup></b></p> <ul style="list-style-type: none"> <li>Both long-term and short-term recruitment and retention premia will be expressed as cash sums and will be separately identifiable from basic pay, any high cost area supplement and any other component of pay. The combined value of any nationally awarded and any locally awarded recruitment and retention premium for a given post shall not normally exceed <u>30% of basic salary</u>.</li> </ul> <p><i>High cost area supplement:</i></p> <table border="1"> <thead> <tr> <th>Area</th> <th>Level (1st April 2009)</th> </tr> </thead> <tbody> <tr> <td>Inner London</td> <td>20% of basic salary, subject to a minimum payment of €4,036 and a maximum payment of €6,217</td> </tr> <tr> <td>Outer London</td> <td>15% of basic salary, subject to a minimum payment of €3,414 and a maximum payment of €4,351</td> </tr> <tr> <td>Fringe</td> <td>5% of basic salary, subject to a minimum payment of €933 and a maximum payment of €1,616</td> </tr> </tbody> </table> <p>Recruitment and retention premia can be paid on top of the high cost area supplement.</p> <p>0-5 years service = 27 days 5-10 years service = 29 days 10+ years service = 33 days Plus 8 days in lieu of liability to work on public holidays, where such liability arises</p> <p>Regional variation: In Northern Ireland this entitlement also contains the two extra statutory days, however, there are ten general public holidays.</p> <p>Pay during annual leave will include regularly paid supplements including any recruitment and retention premia, payments for work outside normal hours and high cost area supplements. Pay is calculated on the basis of what the individual would have received had he/she been at work.</p> <p>NHS Pension Scheme/HSC Pension Scheme – is a defined benefit public service pension scheme.<sup>k</sup></p>	Area	Level (1st April 2009)	Inner London	20% of basic salary, subject to a minimum payment of €4,036 and a maximum payment of €6,217	Outer London	15% of basic salary, subject to a minimum payment of €3,414 and a maximum payment of €4,351	Fringe	5% of basic salary, subject to a minimum payment of €933 and a maximum payment of €1,616
Area	Level (1st April 2009)									
Inner London	20% of basic salary, subject to a minimum payment of €4,036 and a maximum payment of €6,217									
Outer London	15% of basic salary, subject to a minimum payment of €3,414 and a maximum payment of €4,351									
Fringe	5% of basic salary, subject to a minimum payment of €933 and a maximum payment of €1,616									
<p>Annual leave allowance:</p> <p>0-5 years service = 24 days 5-10 years service = 25 days 10+ years service = 27 days Plus 9 days in lieu of liability to work on public holidays, where such liability arises.</p> <p>Payment for annual leave includes any regular bonus or allowance normally paid to the employee but excludes payment for overtime. Premiums currently included are Saturday, Sunday, night duty, twilight hours and public holidays.</p>										
<p>Superannuation arrangements:</p>	<p>The HSE operates a defined benefits pension scheme.<sup>l</sup></p>									
<p>Promotional/career structure:</p>	<p>Job-holders can progress careers along clinical, managerial or educational streams. Incremental pay progression with a long service increment.</p>	<p>Career and pay progression is clearly outlined in Agenda for Change. Within each pay band, there are a number of pay points. As staff successfully develop their skills and knowledge they progress in annual increments up to the maximum of their pay band. At two defined 'gateway points' on each pay band pay progression is based on demonstration of the applied knowledge and skills needed for that job. The first gateway point for all pay bands applies no later than 12 months after appointment to the pay band regardless of the pay point to which the person is appointed. For pay band 5 the second gateway is before the first of the last three points of the pay band.</p> <p>All staff will have annual development reviews against the NHS Knowledge and Skills Framework (KSF) which will result in the production of a personal development plan.</p> <p>The main purpose of the development review will be to look at the way a member of staff is developing with reference to:</p> <ul style="list-style-type: none"> <li>how the duties and responsibilities of the job are being undertaken based on current agreed objectives</li> <li>the application of knowledge and skills in the workplace</li> <li>the consequent development needs of the individual member of staff</li> </ul> <p>Employers will encourage staff members to progress and develop and, where training and/or development needs have been identified and agreed, employers will ensure sufficient financial support is provided.</p>								

Notes:

- <sup>a</sup> Salaries and allowances correct on 25 May 2010.
- <sup>b</sup> Salaries and allowances correct on 25 May 2010.
- <sup>c</sup> Data refer to September 2009. Staff nurses (general) accounted for 43.8 per cent of total nursing WTEs (HSE, 2009a).
- <sup>d</sup> 'Acute Elderly & General' Band 5. Source: NHS Information Centre, Workforce Analysis Team, personal communication [4 February 2010].
- <sup>e</sup> 'Acute Nurse' Band 5. Source: September 2009. DHSSPS Information and Analysis Directorate, personal communication [13 January 2010].
- <sup>f</sup> Staff nurses are entitled to one long service increment after 3 years on the maximum point of their pay scale. Some other grades within the HSE are entitled to further long service increments with a second after three more years and a third after three more.
- <sup>g</sup> Includes job titles 'staff nurse', 'registered nurse' and 'registered practitioner'.
- <sup>h</sup> The Agenda for Change terms and conditions state that: 'Staff joining pay band 5 as new entrants have accelerated progression through the first two points in six monthly steps (that is, they will move up one pay point after six months and a further point after 12 months) providing those responsible for the relevant standards in the organisation are satisfied with their standard of practice. This 12-month period will be referred to as 'Preceptorship'. Part 2: Section 1.8.
- <sup>i</sup> Premium payments at the level indicated were effective from 01 April 2008. Some local variation for certain grades remains as assimilation takes place up to April 2011.
- <sup>j</sup> HSC Pension Scheme is the new name for the HPSS Superannuation Scheme in Northern Ireland. The name was changed as part of the 2008 reforms.
- <sup>k</sup> The scheme was reviewed and reforms were introduced in 2008. Those participating in the existing scheme could transfer to the new scheme in a one-off choice. Pension benefits are based on final salary scheme (although GPs and dental practitioners accrue pensions on a 'career average' basis). The normal pension age is 60 for existing members and 65 for new entrants. New entrants accrue pension benefits at a rate of 1/60<sup>th</sup> of reckonable pay per year of membership (option to exchange part of pension for cash at retirement up to 25% of capital value), compared to 1/80<sup>th</sup> plus a lump sum of three times the pension for existing members.
- The cash required to meet the payment of pensions is met from employer and employee contributions with any shortfall financed by the Exchequer. Both existing members and new entrants, pay contributions at a rate which is tiered according to earnings (ranging from 5 per cent for the lowest paid to 8.5 per cent to the highest paid). The employer contribution is capped at or just above 14 per cent until 2016 and at 14 per cent after that (HSC Business Services Organisation, 2008; NHS Business Services Authority, 2009).

Sources:

- <sup>1</sup> HSE, 2006, 2009a; DoHC, 2010b
- <sup>2</sup> NHS Employers, 2010a, b



**TABLE A6.9**

Senior Physiotherapist

	HSE	NHS																																											
	<b>Senior Physiotherapist<sup>a,1</sup></b>	<b>Advanced Physiotherapist<sup>b,2</sup></b>																																											
Trade union(s):	IMPACT	The Chartered Society of Physiotherapy																																											
No of employees WTEs) in grade:	828.90 (HSE, 2009a) <sup>c</sup>	England 5,795 <sup>d</sup> Northern Ireland 203.7 <sup>e</sup>																																											
Salary scale:	€50,134 – 51,224 – 52,348 – 53,463 – 54,578 – 55,750 – 56,987 – 58,220 – 59,208	Under Agenda for Change advanced physiotherapists are allocated to pay band 7 (at 01.04.09). £30,460 – 31,454 – 32,573 – 34,189 – 35,184 – 36,303 – 37,545 – 38,851 – 40,157																																											
Hours of work:	35 hours Normal working hours: Monday to Friday 09:00 to 17:00 <sup>f</sup>	37.5 hours Normal working hours: 07:00-19:00 Monday to Friday																																											
Premium payments, over-time, on-call, and call-out:	<i>Emergency/On-Call Duty:</i> <table border="1"> <tr> <td>I On-Call with Standby</td> <td>Monday to Friday</td> <td>€23.25</td> </tr> <tr> <td></td> <td>Saturdays</td> <td>€30.35</td> </tr> <tr> <td></td> <td>Sundays and Public Holidays</td> <td>€45.39</td> </tr> <tr> <td></td> <td>- Fee per call (per half hour)</td> <td>€23.25</td> </tr> <tr> <td>II On-Call without Standby</td> <td>- Fee per call (per hour)</td> <td>€63.82</td> </tr> </table> <p>The total On-Call Standby fees paid by an individual hospital should not exceed €192.43 Euros from 01/01/10 for any week except for a week during which a public holiday occurs.</p> <p>Scheduled Continuation Treatments on Saturdays, Sundays and Public Holidays</p> <table border="1"> <tr> <td>I Saturday</td> <td>Per 3 hour session and pro-rata subject to a minimum payment of:</td> <td>€127.12</td> </tr> <tr> <td>II Sunday and Public Holiday</td> <td>Per 3 hour session and pro-rata subject to a minimum payment of:</td> <td>€169.48</td> </tr> </table> <p>Sessional Rates for employees who do not derive their principal source of income from sessional work:</p> <table border="1"> <tr> <td>I Saturday</td> <td>Per 3 hour session and pro-rata subject to a minimum payment of:</td> <td>€113.49</td> </tr> <tr> <td>II Sunday and Public Holiday</td> <td>Per 3 hour session and pro-rata subject to a minimum payment of:</td> <td>€151.32</td> </tr> </table>	I On-Call with Standby	Monday to Friday	€23.25		Saturdays	€30.35		Sundays and Public Holidays	€45.39		- Fee per call (per half hour)	€23.25	II On-Call without Standby	- Fee per call (per hour)	€63.82	I Saturday	Per 3 hour session and pro-rata subject to a minimum payment of:	€127.12	II Sunday and Public Holiday	Per 3 hour session and pro-rata subject to a minimum payment of:	€169.48	I Saturday	Per 3 hour session and pro-rata subject to a minimum payment of:	€113.49	II Sunday and Public Holiday	Per 3 hour session and pro-rata subject to a minimum payment of:	€151.32	<i>Premium payments (unsocial hours) for pay band 7:</i> <table border="1"> <tr> <td>All time on Saturday (midnight to midnight) and any week day after 8pm and before 6am</td> <td>Value of enhancements as percentage of basic pay + 30%</td> </tr> <tr> <td>All time on Sundays and Public Holidays (midnight to midnight)</td> <td>+ 60%</td> </tr> </table> <p>Premium payments are worked out on basic salary. This includes any long term recruitment and retention premia. It does not include short-term recruitment and retention premiums, high cost area supplements or any other payment.</p> <p>Where a continuous night shift or evening shift on a weekday (other than a public holiday) includes hours outside the period of 20:00 and 06:00, the 30% enhancement should be applied to the whole shift; if more than half of the time falls between 20:00 and 06:00. Any extra time worked in a week, above standard hours, will be treated as overtime. Overtime at time and a half (bands 1-7) with the exception of the eight general public holidays which is paid at double time. Overtime payments will be based on the hourly rate provided by basic pay plus any long-term recruitment and retention premia.</p> <p>Staff will only receive one rate of percentage enhancement for each hour worked.</p> <p><i>Over-time:</i> Any extra time worked in a week, above standard hours, will be treated as overtime. Overtime at time and a half (bands 1-7) with the exception of the eight general public holidays which is paid at double time. Overtime payments will be based on the hourly rate provided by basic pay plus any long-term recruitment and retention premia</p> <p><i>On-call allowance (where applicable)</i></p> <table border="1"> <tr> <td>Frequency of on-call</td> <td>Value of enhancements as percentage of basic pay</td> </tr> <tr> <td>1 in 3 or more frequent</td> <td>9.5%</td> </tr> <tr> <td>1 in 6 or more but less than 1 in 3</td> <td>4.5%</td> </tr> <tr> <td>1 in 9 or more but less than 1 in 6</td> <td>3.0%</td> </tr> <tr> <td>1 in 12 or more but less than 1 in 9</td> <td>2.0%</td> </tr> <tr> <td>Less frequent than 1 in 12</td> <td>By local agreement</td> </tr> </table>	All time on Saturday (midnight to midnight) and any week day after 8pm and before 6am	Value of enhancements as percentage of basic pay + 30%	All time on Sundays and Public Holidays (midnight to midnight)	+ 60%	Frequency of on-call	Value of enhancements as percentage of basic pay	1 in 3 or more frequent	9.5%	1 in 6 or more but less than 1 in 3	4.5%	1 in 9 or more but less than 1 in 6	3.0%	1 in 12 or more but less than 1 in 9	2.0%	Less frequent than 1 in 12	By local agreement
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	HSE	NHS								
<p>Availability of allowance in the nature of pay:</p>	<p><b>Senior Physiotherapist<sup>a,1</sup></b>            Training Allowance – physiotherapists who are in employment that caters for the clinical training of undergraduate therapy students during their clinical placements are entitled to an annual training allowance of €250 for continuing professional development.</p>	<p><b>Advanced Physiotherapist<sup>b,2</sup></b>            Recruitment and retention premia – under Agenda for Change, additional payments may be made to an individual post or specific groups of posts where market pressures would otherwise prevent the employer from being able to recruit and retain staff.</p> <ul style="list-style-type: none"> <li>- short-term recruitment and retention premia will not be pensionable and will usually be awarded for a time-limited period.</li> <li>- long-term recruitment and retention premia will be pensionable and will be taken into account when calculating the level of unsocial hours payments, on-call payments, overtime and high cost area payments</li> <li>- Both long-term and short-term recruitment and retention premia will be expressed as cash sums and will be separately identifiable from basic pay, any high cost area supplement and any other component of pay.</li> </ul> <p>The combined value of any nationally awarded and any locally awarded recruitment and retention premium for a given post shall not normally exceed 30% of basic salary.</p> <p><i>High cost area supplement:</i></p> <table border="1"> <thead> <tr> <th>Area</th> <th>Level (1st April 2009)</th> </tr> </thead> <tbody> <tr> <td>Inner London</td> <td>20% of basic salary, subject to a minimum payment of €4,036 and a maximum payment of €6,217</td> </tr> <tr> <td>Outer London</td> <td>15% of basic salary, subject to a minimum payment of €3,414 and a maximum payment of €4,351</td> </tr> <tr> <td>Fringe</td> <td>5% of basic salary, subject to a minimum payment of €933 and a maximum payment of €1,616</td> </tr> </tbody> </table>	Area	Level (1st April 2009)	Inner London	20% of basic salary, subject to a minimum payment of €4,036 and a maximum payment of €6,217	Outer London	15% of basic salary, subject to a minimum payment of €3,414 and a maximum payment of €4,351	Fringe	5% of basic salary, subject to a minimum payment of €933 and a maximum payment of €1,616
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Fringe	5% of basic salary, subject to a minimum payment of €933 and a maximum payment of €1,616									
<p>Annual leave allowance:</p>	<p>29 days as per HSE(2009b)            This applies to new recruits to the HSE since its establishment (01 January 2005) and those who were promoted/re-graded on or after 16 December 2008. Staff who remain on old arrangements usually receive 29 days leave but this can vary locally.</p> <p>Payment for annual leave includes any regular bonus or allowance normally paid to the employee but excludes payment for overtime. Premiums currently included are Saturday, Sunday, night duty, twilight hours and public holidays.</p>	<p>Recruitment and retention premia can be paid on top of the high cost area supplement.</p> <p>0-5 years service = 27 days            5-10 years service = 29 days            10+ years service = 33 days            Plus 8 days in lieu of liability to work on public holidays, where such liability arises.</p> <p>Regional variation:            In Northern Ireland this entitlement also contains the two extra statutory days, however, there are ten general public holidays.</p> <p>Pay during annual leave will include regularly paid supplements including any recruitment and retention premia, payments for work outside normal hours and high cost area supplements. Pay is calculated on the basis of what the individual would have received had he/she been at work.</p> <p>NHS Pension Scheme/HSC Pension Scheme – is a defined benefit public service pension scheme.<sup>1</sup></p>								
<p>Superannuation arrangements:             Promotional/career structure:</p>	<p>The HSE operates a defined benefits pension scheme.<sup>h</sup></p> <p>Job-holders can progress careers along clinical (Clinical Specialist Physiotherapist) or, managerial streams (Physiotherapist Manager).            Incremental pay progression.</p>	<p>Career and pay progression is clearly outlined in Agenda for Change.            Within each pay band, there are a number of pay points. As staff successfully develop their skills and knowledge they progress in annual increments up to the maximum of their pay band. At two defined 'gateway points' on each pay band pay progression is based on demonstration of the applied knowledge and skills needed for that job. The first gateway point for all pay bands applies no later than 12 months after appointment to the pay band regardless of the pay point to which the person is appointed. For pay band 5 the second gateway is before the first of the last three points of the pay band.            All staff will have annual development reviews against the NHS Knowledge and Skills Framework (KSF) which will result in the production of a personal development plan.            The main purpose of the development review will be to look at the way a member of staff is developing with reference to:</p>								

HSE	Senior Physiotherapist <sup>a,1</sup>	NHS	Advanced Physiotherapist <sup>b,2</sup>
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**Notes:**

<sup>a</sup> Salaries and allowances correct on 25 May 2010.

<sup>b</sup> Salaries and allowances correct on 25 May 2010.

<sup>c</sup> Data refer to September 2009. Senior physiotherapists accounted for 57.5 per cent of total 'physiotherapists' (incl. physiotherapist, clinical specialist, manager, practice tutor, teacher and physiotherapist-in-charge (Grade III)) WTEs (HSE, 2009a).

<sup>d</sup> Source: September 2009. NHS Information Centre, Workforce Analysis Team, personal communication [11 December 2009].

<sup>e</sup> Source: September 2009. DHSSPS Information and Analysis Directorate, personal communication [13 January 2010].

<sup>f</sup> The majority of physiotherapists would be on these arrangements. However, as per HSE (2009c), with effect from 16 December 2008, contracts for all new entrants, existing staff appointed to a promotional post and staff on renewed temporary contracts in the HSE and Voluntary Hospitals should include the following stipulation: - 'You will be required to work the agreed roster/on-call arrangements advised to you by your line manager. Your rostered hours of work are liable to change between the hours of 8am – 8pm over 7 days to meet the requirements for extended day services in accordance with the terms of the Framework Agreement.' Existing staff can opt for these arrangements voluntarily.

<sup>g</sup> Premium payments at the level indicated were effective from 1 April 2008. Some local variation for certain grades remains as assimilation takes place up to April 2011.

<sup>h</sup> HSC Pension Scheme is the new name for the HPSS Superannuation Scheme in Northern Ireland. The name was changed as part of the 2008 reforms.

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**Sources:** <sup>1</sup> HSE, 2006, 2009a; DoHC, 2010b

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HSE Consultant <sup>a,1</sup>	NHS Consultant <sup>b</sup>																																																										
<p>Premium payments, over-time, on-call and call-out:</p> <p>If the 37 hour scheduled commitment is regularly exceeded a review is required. If, for temporary reasons, the commitment is unavoidably exceeded – local arrangements can be made to compensate the Consultant.</p> <p><i>Saturday, Sunday and Public Holidays:</i></p> <p>Structured on-site attendance at weekends and on public holidays will be subject to the following premium payments:</p> <p>Time + ½ on Saturdays</p> <p>Double time on Sundays and Public Holidays</p> <p>Structured commitments in excess of 37 hours:</p> <p>The Consultant may be required to participate in the on-call roster and for the provision of callout services when on-call outside scheduled commitments.</p> <p>The Consultant rostered on-call may be required to provide a structured commitment on-site of up to 5 hours on a Saturday and / or 5 hours overtime on a Sunday and / or 5 hours on a public holiday.</p> <p>Consultants on onerous on-call rosters shall not be expected to deliver the upper end of this requirement as determined by the Clinical Director. The Consultant's liability for on-call outside such structured or other scheduled overtime hours will continue to apply.</p> <p><i>On-Call/Call Out Payments:</i></p> <p>Flat Annual Payment: €3,857</p> <p>In addition to the Flat Annual Payment further payments are made to Consultants on more onerous rotas as follows:</p> <table border="1"> <thead> <tr> <th>Rota</th> <th>No. of Call-Outs</th> <th>Annual Payment</th> </tr> </thead> <tbody> <tr> <td>1 in 3</td> <td></td> <td>€2,234</td> </tr> <tr> <td>1 in 2</td> <td>1-80 call-outs</td> <td>€5,577</td> </tr> <tr> <td></td> <td>81-120 call-outs</td> <td>€6,445</td> </tr> <tr> <td></td> <td>121+ call-outs</td> <td>€7,058</td> </tr> <tr> <td>1 in 1</td> <td>1-80 call-outs</td> <td>€6,693</td> </tr> <tr> <td></td> <td>81-120 call-outs</td> <td>€8,470</td> </tr> <tr> <td></td> <td>121+ call-outs</td> <td>€10,460</td> </tr> </tbody> </table> <p><i>Emergency call-out payments:</i></p> <table border="1"> <thead> <tr> <th></th> <th>First 30 Call-Outs</th> <th>31-120 Call-Outs</th> <th>121 Call-Outs or More</th> </tr> </thead> <tbody> <tr> <td>Per Call-Out (Hourly rate or part thereof):</td> <td>€78.59</td> <td>€118.21</td> <td>€156.15</td> </tr> <tr> <td>If Call-Out Occurs After Midnight (hourly rate or part thereof):</td> <td>€104.76</td> <td>€158.40</td> <td>€209.65</td> </tr> <tr> <td>For each hour or part hour in excess of the first hour</td> <td>€52.31</td> <td>€78.06</td> <td>€104.84</td> </tr> <tr> <td>Annual limit</td> <td></td> <td>€22,303</td> <td></td> </tr> </tbody> </table> <p><i>Rest Days:</i></p> <p>Consultants with an on-call liability shall have an entitlement to avail of rest days on the following basis:</p> <ul style="list-style-type: none"> <li>1 : 1 on-call roster entitles the Consultant to 5 days in lieu per 4 week period;</li> <li>1 : 2 on-call roster entitles the Consultant to 3 days in lieu per 4 week period;</li> <li>1 : 3 on-call roster entitles the Consultant to 2 days in lieu per 4 week period;</li> <li>1 : 4 on-call roster entitles the Consultant to 1 day in lieu per 4 week period.</li> </ul> <p>Rest days should be taken as soon as possible following the on-call liability to which they relate. Where</p>	Rota	No. of Call-Outs	Annual Payment	1 in 3		€2,234	1 in 2	1-80 call-outs	€5,577		81-120 call-outs	€6,445		121+ call-outs	€7,058	1 in 1	1-80 call-outs	€6,693		81-120 call-outs	€8,470		121+ call-outs	€10,460		First 30 Call-Outs	31-120 Call-Outs	121 Call-Outs or More	Per Call-Out (Hourly rate or part thereof):	€78.59	€118.21	€156.15	If Call-Out Occurs After Midnight (hourly rate or part thereof):	€104.76	€158.40	€209.65	For each hour or part hour in excess of the first hour	€52.31	€78.06	€104.84	Annual limit		€22,303		<p>Premium payments (<i>unsocial hours</i>):</p> <p>After 7pm and before 7am during the week or any time during the weekend PAs are reduced to three hours (rather than four) or the rate of pay increases to time + ½.</p> <p><i>Over-time:</i></p> <ul style="list-style-type: none"> <li>- The employing organisation may, but is not obliged to, offer the consultant the opportunity to carry out up to one extra Programmed Activity per week on top of the standard commitment set out in his or her contract of employment,</li> <li>- Additional Programmed Activities may be offered on a fixed basis, but where possible the employing organisation will offer them on a mutually agreed annualised basis. Where consultants prospectively agree to extra Programmed Activities these will be remunerated.</li> <li>- The annual rate for an additional Programmed Activity will be 10 per cent of basic salary, where basic salary includes the pay thresholds and any discretionary points or local clinical excellence awards.</li> </ul> <p><i>On-call availability supplement:</i></p> <p>Recognised and paid at a rate determined by the complexity and frequency of the on call work.</p> <p>Category A: this applies where the consultant is typically required to return immediately to site when called or has to undertake interventions with a similar level of complexity to those that would normally be carried out on site, such as telemedicine or complex telephone consultations;</p> <p>Category B: this applies where the consultant can typically respond by giving telephone advice and/or by returning to work later.</p> <table border="1"> <thead> <tr> <th>Frequency of rota commitment</th> <th>Value of availability supplement as a percentage of full-time basic salary</th> </tr> </thead> <tbody> <tr> <td>Category A</td> <td>Category B</td> </tr> <tr> <td>High frequency: 1 in 1 to 1 in 4</td> <td>8.0%</td> </tr> <tr> <td>Medium frequency: 1 in 5 to 1 in 8</td> <td>5.0%</td> </tr> <tr> <td>Low frequency: 1 in 9 or less frequent</td> <td>3.0%</td> </tr> <tr> <td></td> <td>2.0%</td> </tr> <tr> <td></td> <td>1.0%</td> </tr> </tbody> </table> <p><i>Emergency work arising from on-call duties:</i></p> <p>The expected average amount of time that a consultant is likely to spend on unpredictable emergency work each week whilst on-call and directly associated with his or her on-call duties is treated as counting towards the number of Direct Clinical Care Programmed Activities that the consultant is regarded as undertaking. This is up to a maximum average of two Programmed Activities per week.</p>	Frequency of rota commitment	Value of availability supplement as a percentage of full-time basic salary	Category A	Category B	High frequency: 1 in 1 to 1 in 4	8.0%	Medium frequency: 1 in 5 to 1 in 8	5.0%	Low frequency: 1 in 9 or less frequent	3.0%		2.0%		1.0%
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	81-120 call-outs	€8,470																																																									
	121+ call-outs	€10,460																																																									
	First 30 Call-Outs	31-120 Call-Outs	121 Call-Outs or More																																																								
Per Call-Out (Hourly rate or part thereof):	€78.59	€118.21	€156.15																																																								
If Call-Out Occurs After Midnight (hourly rate or part thereof):	€104.76	€158.40	€209.65																																																								
For each hour or part hour in excess of the first hour	€52.31	€78.06	€104.84																																																								
Annual limit		€22,303																																																									
Frequency of rota commitment	Value of availability supplement as a percentage of full-time basic salary																																																										
Category A	Category B																																																										
High frequency: 1 in 1 to 1 in 4	8.0%																																																										
Medium frequency: 1 in 5 to 1 in 8	5.0%																																																										
Low frequency: 1 in 9 or less frequent	3.0%																																																										
	2.0%																																																										
	1.0%																																																										

	HSE Consultant <sup>a,1</sup>	NHS Consultant <sup>b</sup>												
<p>Availability of allowance in the nature of pay:</p>	<p>service demands do not permit them to be taken immediately, rest days may be accumulated; for a maximum of six months from the earliest date of the on-call liability to which they relate and at that point they must be availed of or forfeited, or for a maximum of three months from the earliest date of the on-call liability to which they relate. If it is not possible to avail of them at the end of the three-month period the Consultant may seek to be compensated for them at a rate equivalent to the daily rate for the type of post which (s)he occupies.</p> <p>Continuing Medical Education: The CME allowance is €3,000 with effect from the 01 January 2009. Payment is on a vouched basis and adjusted in line with the Consumer Price Index. This allowance may be carried over annually for a maximum of five years.</p> <p>Telecommunications: The Consultant shall be reimbursed either the cost of home or mobile phone rental.</p> <p>There is additional remuneration for Masters of Maternity Hospitals (€53,008) and for Clinical Directors (€50,000).</p>	<p><i>Recruitment and retention premia:</i> An employing organisation may under certain circumstances decide to award a recruitment or a retention premium in addition to basic salary. This may be paid either as a single sum, or on recurrent basis but for a time-limited period. If the latter, the period in question will not typically last for more than four years. The value of the premium will not typically exceed 30 per cent of the normal starting salary for a consultant post.</p> <p><i>London weighting allowance (annual):</i></p> <table border="1"> <thead> <tr> <th>Area</th> <th>Non-resident staff</th> <th>Resident Staff</th> </tr> </thead> <tbody> <tr> <td>London Zone from 01 April 2005</td> <td>£2,162</td> <td>£602</td> </tr> <tr> <td>Extra-territorially managed Units from 1 July 1979</td> <td>£527</td> <td>£147</td> </tr> <tr> <td>Fringe Zone 01 July 1981</td> <td>£149</td> <td>£38</td> </tr> </tbody> </table> <p><i>Clinical Excellence Award (CEA) Scheme:</i><sup>e,h</sup></p> <p>The CEA Scheme rewards those consultants who contribute most towards the delivery of safe and high quality care to patients and to the continuous improvement of NHS services including those who do so through their contribution to academic medicine. All levels of award will be made against the same criteria to reflect nationally agreed objectives.</p> <p>The scheme is open to all consultants with at least one year's service (three years in Northern Ireland) at consultant level. The lower value awards (Level 1-9) are made by local (individual employer) committees. The higher value awards (Bronze, Silver, Gold and Platinum) are decided by the Advisory Committee on Clinical Excellence Awards (ACCCEA) in England and the Northern Ireland Clinical Excellence Awards Committee (NICEAC) and its sub-committees. Consultants must have achieved a minimum of four lower awards before becoming eligible for higher awards.</p> <p>Awards are reviewed at five-yearly intervals to ensure that the consultant is continuing to fulfil the criteria for the award.</p> <p>The following table outlines the amount of the awards in 2009 (rates vary depending on the number of PAs; those listed apply to the standard 10 PAs) and the proportion of consultants in England (eligible) and Northern Ireland (total) in receipt of the awards in 2008. There are twelve levels of award:</p>	Area	Non-resident staff	Resident Staff	London Zone from 01 April 2005	£2,162	£602	Extra-territorially managed Units from 1 July 1979	£527	£147	Fringe Zone 01 July 1981	£149	£38
Area	Non-resident staff	Resident Staff												
London Zone from 01 April 2005	£2,162	£602												
Extra-territorially managed Units from 1 July 1979	£527	£147												
Fringe Zone 01 July 1981	£149	£38												

HSE Consultant <sup>a,1</sup>		NHS Consultant <sup>b</sup>							
		Level	Award 2009	England 2008 <sup>c</sup>	NI 2008	Level	Award 2009	England 2008	NI 2008
		No CEA	-	39.4%	46.8%	Level 9/ Bronze	£35,484	8.4%	3.9%
		Level 1	£2,957	38.5%	32.8%	Silver	£46,644	4.0%	4.8%
		Level 2	£5,914			Gold	£58,305		
		Level 3	£8,871			Platinum	£75,796	0.8%	0.6%
		Level 4	£11,828						
		Level 5	£14,785	9.1%	11.1%				
		Level 6	£17,742						
		Level 7	£23,656						
Level 8	£29,570								
<p>Note: percentage columns subject to rounding. Source: NHS Employers, 2010c; ACEA, 2008 ;NICEAC, 2009.</p> <p><i>Fees for domiciliary visits:</i> Although it is expected that domiciliary consultations will normally be scheduled as part of Programmed Activities domiciliary consultations undertaken in the consultant's own time will be compensated.</p> <p>Where a practitioner is called for domiciliary consultation and sees on the same occasion in the same residence or institution more than one clinically related case, a consultation fee shall be payable at the standard rate for the first such case seen and at the intermediate rate for up to three such further cases. Where more than four clinically related cases are seen, no additional fees shall be payable for such subsequent cases.</p> <p>Standard rate: £81.72 Intermediate rate: £40.86</p> <p>As a general principle the consultant is entitled to the fees for work done in his or her own time, or during annual or unpaid leave.</p> <p><i>Telecommunications:</i> Any expenditure necessarily incurred by a consultant on telephone calls in the service of an employing organisation shall be reimbursed, through the periodical claim for travelling and subsistence.</p> <p><i>Other Payments:</i> A consultant may be entitled to certain other payments and allowances at the discretion of the employing organisation.</p>									
Annual leave allowance:	31 working days Plus 9 days in lieu of liability to work on public holidays, where such liability arises.  The Consultant may apply for Sabbatical Leave or Career breaks.  The Consultant may apply for special leave to provide services in countries where health services are underdeveloped.	Year	Number of years of completed service as a consultant						
		Until 31 March 2004	< 7 years	≥ 7 years					
		01 April 2004 – 31 March 2005	30 days	30 days					
		From 01 April 2005	30 days	31 days	32 days				
<p>England: The leave entitlements of consultants in regular appointment are additional to eight public holidays and two statutory holidays or days in lieu thereof. The two statutory days may, by local agreement, be converted to a period of annual leave.</p>									

	HSE Consultant <sup>a,1</sup>	NHS Consultant <sup>b</sup>
		<p>Northern Ireland: The leave entitlements of consultants in regular appointments are additional to ten public holidays and two statutory holidays or days in lieu thereof. The two statutory days may, by local agreement, be converted to a period of annual leave.</p> <p>In addition, a consultant who in the course of his or her duty was required to be present in hospital or other place of work between the hours of 00:00 and 09:00 on statutory or public holidays should receive a day off in lieu.</p> <p>A consultant may apply for sabbatical leave in accordance with the employing organisation's current arrangements.</p> <p>A consultant may be allowed professional or study leave for approved postgraduate purposes.</p> <p>NHS Pension Scheme/HSC Pension Scheme<sup>10</sup> – is a defined benefit public service pension scheme.<sup>10</sup></p>
<p>Superannuation arrangements: Promotional/ Career Structure</p>	<p>The HSE operates a defined benefits pension scheme.</p> <p>Promotional opportunities existing through the Academic pathway (Professor / Consultant, Associate Professor / Consultant and Senior Lecturer / Consultant) or through the clinical pathway (i.e. Clinical Director).</p>	<p>PAs agreed between clinical manager and consultant. Job plans separated into Direct Clinical Care; Supporting Professional Activities; Additional NHS Responsibilities; and External Duties. Pay progression dependent on achievement of the individual objectives in the consultant's job plan.</p>



**Notes:**

- <sup>a</sup> Salaries and allowances correct on 05 January 2010.
- <sup>b</sup> In addition to 75 Academic Consultants, there are 62 consultants on the 1997 contract type 1 and 188 on contract type 2 (DoHC, personal communication; 13 May 2010).
- <sup>c</sup> The maximum basic salary for a consultant remaining on the pre-2003 contract is £80,186.
- <sup>d</sup> In the NHS consultant salaries can be significantly increased by Clinical Excellence Awards.
- <sup>e</sup> For consultants transferring from pre-2003 contracts, seniority on transfer to the new contract influences the threshold at which they start on the new contract and the time they spend at each threshold.
- <sup>f</sup> The consultant contract outlined increases to call-out and on-call payments, however, these increases were not sanctioned by the Minister.
- <sup>g</sup> The scheme in Northern Ireland is different in some respects to the awards schemes in the other devolved administrations. In Northern Ireland application is by self nomination only and there are different rules on eligibility and a different citation process (Department of Health, 2009).
- <sup>h</sup> Clinical Excellence Awards replaced discretionary points and distinction awards which were available under the old contracts. If consultants already hold discretionary points or a distinction award they may apply for a Clinical Excellence Award.
- <sup>i</sup> Unlike the proportions for England which include only eligible consultants the figures for Northern Ireland are calculated using the total population of consultants as at the time of publication the number of eligible consultants was not available. Therefore, the numbers for Northern Ireland must be treated as an approximation. In addition, it is difficult to compare figures for England and Northern Ireland as consultants become eligible for CEAs after one year in England but not until after three years in Northern Ireland.
- <sup>j</sup> In 2008, the awards for 10 PAs ranged from £2,943 to £74,676.
- <sup>k</sup> The percentages here include consultants on older contracts who are in receipt of Discretionary Points or Distinction Awards.
- <sup>l</sup> Employees appointed prior to 01 April 2004 (Public Service Superannuation (Miscellaneous Provisions) Act 2004) have a minimum retirement age of 60 years and maximum retirement age of 65 years. (There are some initiatives for nurses for retirement at 55 years). Employees who were appointed after 1<sup>st</sup> April 2004 have a minimum retirement age of 65 years, with no maximum retiring age. The maximum service requirement for superannuation purposes is 40 years. On retirement employees receive a Lump Sum and Pension. The lump sum is made up of the employees' annual salary at retirement by their number of years service by 3/80. Pension is calculated based on gross salary at the date of retirement less Contributory Old Age Pension (if the employee is entitled to receive this) by 1/80. Since 2002 all HSE employees are obliged to contribute to the pension scheme and the rate of contribution is based on the employee's PRSI class.
- <sup>m</sup> HSC Pension Scheme is the new name for the HPSS Superannuation Scheme in Northern Ireland. The name was changed as part of the 2008 reforms.
- <sup>n</sup> The scheme was reviewed and reforms were introduced in 2008. Those participating in the existing scheme could transfer to the new scheme in a one-off choice. Pension benefits are based on final salary scheme (although GPs and dental practitioners accrue pensions on a 'career average' basis). The normal pension age is 60 for existing members and 65 for new entrants. New entrants accrue pension benefits at a rate of 1/60<sup>th</sup> of reckonable pay per year of membership (option to exchange part of pension for cash at retirement up to 25% of capital value), compared to 1/80<sup>th</sup> plus a lump sum of three times the pension for existing members.
- The cash required to meet the payment of pensions is met from employer and employee contributions with any shortfall financed by the Exchequer. Both existing members and new entrants, pay contributions at a rate which is tiered according to earnings (ranging from 5 per cent for the lowest paid to 8.5 per cent to the highest paid). The employer contribution is capped at or just above 14 per cent until 2016 and at 14 per cent after that (HSC Business Services Organisation, 2008; NHS Business Services Authority, 2009).

**Sources:**

- <sup>1</sup> DoHC, 2010b; HSE, 2008
- <sup>2</sup> National Audit Office, 2007; NHS, 2009
- <sup>3</sup> FTE figures relate to 2008 and were sourced from Department of Health (2009). For both England and Northern Ireland the figures include consultants on both the old and new contracts. In Northern Ireland the consultant category does not include the grade Director of Public Health
- <sup>4</sup> NHS Information Centre, Workforce Analysis Team, personal communication [12 March 2010]

**TABLE A6.11**  
Description of Model Inputs and Outputs

	Variable	Notes	Source
Outputs	Number of casemix-adjusted inpatient discharges	Casemix-adjusted inpatient discharges were calculated using the number of inpatient discharges from HIPE and the casemix parameters from the National Casemix Programme. The casemix parameters were applied to all hospitals, including those that do not participate in the National Casemix Programme.	HIPE
	Number of casemix-adjusted day case discharges	In 2006, data collection in HIPE was expanded to include radiotherapy and dialysis encounters on a day basis. Therefore, these encounters are not captured for 2005. However, the number of dialysis treatments for 2005 is reported by the DoHC/HSE. Therefore, these data were incorporated into the number of day case discharges for 2005. However, the number of day case discharges in 2005 will still be underestimated due to the absence of radiotherapy encounters. (No data available for these for 2005.) Casemix-adjusted day case discharges were calculated using the number of day case discharges from HIPE and the casemix parameters from the National Casemix Programme. The casemix parameters were applied to all hospitals, including those that do not participate in the National Casemix Programme. The 2006 casemix weight for dialysis was applied to the 2005 data on dialysis treatments.	HIPE, DoHC/HSE
	Number of new outpatient attendances at consultant-controlled outpatient clinics	–	DoHC/HSE
	Number of return outpatient attendances at consultant-controlled outpatient clinics	–	DoHC/HSE
	Number of emergency presentations	Number of emergency presentations is equal to the sum of the numbers of emergency department (ED) attendances and emergencies from other sources. Data on emergency presentations were available for 2007 and 2008. Data on ED attendances were available for 2005 and 2006. Data on emergency presentations for 2005 and 2006 were imputed by applying the mean of the 2007 and 2008 percentages of emergency presentations that were ED attendances to the 2005 and 2006 ED attendances. 2008 data were available only for those hospitals providing adult ED services. The 2008 data for other hospitals was imputed by applying the average growth rate in ED attendances between 2005/06 and 2006/07 and applying the 2007 relationship between ED attendances and emergency presentations.	DoHC/HSE
Inputs	Interns	Number of whole time equivalent interns	HSE
	Number of medical and dental staff	Number of whole time equivalent medical and dental staff Excludes interns	HSE
	Number of non-medical staff	Number of whole time equivalent non-medical staff, including categories of nursing, health and social care, other patient and client care, general support and management and administration	HSE
	Total beds	Includes day and inpatient beds	DoHC/HSE

Note: A value of 1 was added to zero input or output levels. This is to avoid hospitals with zero output (input) levels being considered less (more) efficient than their counterparts with non-zero output (input) levels.

Sources: DoHC, personal communication; 29 October 2009; HSE, personal communication; 30 January 2009; HSE, 2009d

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**PART 7**

Framework for Supporting the  
Delivery of Integrated Health Care  
in Ireland

**CHAPTER 15**

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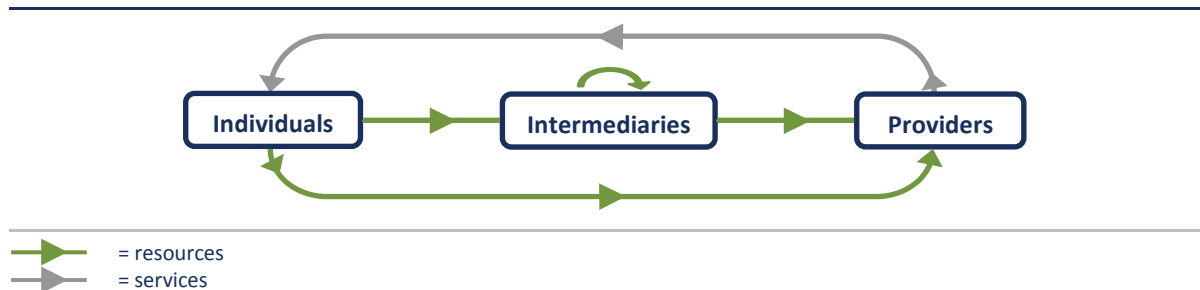
# Chapter 15

## Policy Implications and a Framework of Entitlements for the Irish Health-Care Sector

### 15.1 INTRODUCTION

The preceding chapters have analysed different phases in the flow of resources in a health-care system as outlined in Figure 1.1 (see also Figure 15.1), examining international and national evidence on the decisions to be made in each part of the complete system. In particular, with the increasing prevalence of chronic disease the importance of integrated health-care delivery is internationally recognised. It is stated policy in Ireland to move towards integrated health-care delivery and the policy implications of this need to be outlined. In Section 15.2 of this chapter, the key messages on resource allocation, financing and sustainability are summarised, with a view to identifying policy implications for the Irish context.

**FIGURE 15.1**  
Flow of Health-Care Resources and Services



From an assessment of the complete resource flow in the Irish context, there are problems in the financing system that are not supportive of effective resource allocation or integrated health-care delivery. In particular, changes to user fees and health-care entitlement structures are required to ensure that user incentives are consistent with those of all other actors in the system and these are discussed in Section 15.3. Drawing on the theoretical and empirical analysis in the preceding chapters, this chapter outlines, in Sections 15.4 to 15.6, a framework for health-care entitlement and user fee structures that would support effective resource allocation for integrated health care in the Irish context. Preliminary estimates of the government costs of that framework are also presented.

Thus, Section 15.2 provides a summary of the policy implications for Ireland that emerge from the discussion (in Parts 2–6) of the theory and practice of resource

allocation, financing and sustainability. Section 15.3 examines some of the inconsistencies and other challenges of the current health-care entitlement and user fee structures. Section 15.4 outlines a framework of health-care entitlements and user fees that would support integrated health-care delivery in the Irish system. Section 15.7 presents preliminary cost estimates for the framework, based on available data. Section 15.6 discusses the framework in the context of key assessment criteria and Section 15.7 concludes with a brief summary of the chapter.

## **15.2 POLICY IMPLICATIONS FOR RESOURCE ALLOCATION, FINANCING AND SUSTAINABILITY IN IRELAND**

### **15.2.1 Resource Allocation**

Resource allocation decisions are mainly determined at the centre of the resource flow (in terms of Figure 15.1). Resources available for allocation are pooled by a central or regional body (e.g. the Health Service Executive (HSE) in the Irish context). These bodies may be involved in purchasing or commissioning health-care services from providers (i.e. purchaser-provider split), or they may be directly responsible for providing services (i.e. direct provision). Where resources are allocated on the basis of population health, the health needs of the individuals in the population are taken into account. The providers in turn deliver health-care services to individuals on the basis of selected criteria (e.g. need, equal access, willingness to pay, etc.). The key decisions required at these parts of the system were the focus of Chapters 2–8, drawing on international evidence, and identifying issues in the Irish context that require specific attention.

Health-care resource allocation is a method for distributing resources among competing claims in a way that is in line with national policy priorities. There has been a shift in how health-care resources are distributed and many countries now subscribe to the principle of allocating health-care resources on the basis of relative need for care in the population. Analysis of resource allocation in primary, community and continuing care in the Irish system has shown that a large proportion of resources have up to now been allocated on the basis of historic budgets, with incremental adjustments for new services, and without reference to population need (Chapter 6). In the acute public hospital sector, resources are also predominantly allocated on a historic budget basis, with some adjustment for complexity and relative performance through retrospective casemix budget adjustment. Overall, as detailed in Chapter 7, the resource allocation mechanisms used in hospitals lead to a complex set of financial incentives that may be inconsistent within and between providers (e.g. incentives favouring the treatment of private patients in public hospitals, etc.).

Analysis of international evidence on resource allocation helps to identify best practice in this area. When moving towards a population health-based method of

allocating resources a number of decisions are required on the specific characteristics of the resource allocation mechanism. These were discussed in Chapter 2 and policy makers can draw on lessons from international experience to make the most appropriate decisions in the Irish context on issues such as the extent of 'top-slicing' that is required, the size of the unit to which resources are allocated, etc.

To ensure that resources are ultimately allocated in a way that is consistent with national policy priorities, a set of conditions is required to support the resource allocation mechanism. Separation of purchasing/commissioning roles from service provision allows the establishment of incentives to encourage providers to follow specific protocols (e.g. effective and efficient ways of working). Appropriate provider payment mechanisms are also required to support resource allocation (discussed in Chapters 3 and 4). There is international evidence that providers do respond to financial incentives and thus it is important to establish incentive structures that are aligned with policy priorities. Reimbursement of providers can be at an individual (e.g. general practitioner (GP), consultant) or institutional (e.g. acute hospital) level. The three main individual provider payment mechanisms are fee-for-service, capitation and salary. There are advantages and disadvantages to each (e.g. fee-for-service encourages increased activity but discourages preventive care, while capitation can encourage preventive care but can also lead to cream-skimming of low risk patients). A combination of the three payment methods can be used, and it is also possible to introduce pay-for-performance incentives. The mixed method of reimbursement is recommended in the international literature although there is as yet no agreement on the most appropriate mix. Institutional reimbursement mechanisms range from block budgets to service-based payments. As with the individual provider payment methods, there are trade-offs between the different methods of paying institutions. Global budgets can be effective in containing costs but may restrict access (e.g. to more complex patients) or decrease quality of care. Service-based payments link payment to the level and type of care provided which can encourage activity but may be expensive. International experience recommends a mixture of these payment mechanisms (e.g. a global budget with some service-based payments).

### 15.2.2 Integrated Health-Care Delivery

To ensure that the resource allocation system supports integrated health-care delivery, a number of conditions are required. Integrated care involves coherent and co-ordinated delivery of health-care services for patients with acute and chronic problems across a broad range of health and social care providers. As outlined in Chapters 5 and 8, a principal aim of integrated health care is to improve the patient's journey through the system by co-ordinating care among providers and by strengthening the role of primary care. Integrated care is particularly effective for the management of chronic conditions. Patients with chronic conditions have to deal

with a number of different provider relationships, treatment decisions and follow-up prescriptions. With the increasing prevalence of chronic disease (and particularly the prevalence of patients with multiple chronic conditions), there is a growing realisation of the importance of integrated care. As this is an emerging policy issue, most international experience with integrated care to date has been with relatively small-scale initiatives that focus on the management of chronic diseases, and most have not been subjected to formal economic evaluation.

Available analyses have identified key requirements for integrated care. The first of these requirements is the establishment of appropriate incentives for providers that support integrated care. As discussed in Chapter 5, health services that are paid for on an episodic, visit-related basis create no incentive to provide comprehensive, co-ordinated and continuous care for the prevention and management of chronic illness. Thus, one of the main challenges in developing integrated care is to change provider behaviour away from episodic forms of care. Other requirements for integrated health care include co-ordinated IT systems, and good governance structures (see Chapter 5). More specific characteristics for high-performing chronic care systems have been identified: universal coverage, care that is free at the point of use, a focus on preventive health, support for patient self-management, priority to primary health care, emphasis on population management, a multi-disciplinary approach to primary care, ability for primary care providers to access specialist advice and support when needed, effective IT systems, and care co-ordination.

In Ireland, policy makers are committed to establishing an integrated health-care system as demonstrated by the establishment of the new Integrated Services Directorate (ISD) at the HSE in 2009 (see Chapter 8). Improving the interface between, and within, acute and primary, community and continuing care facilitates the treatment of patients in the most appropriate location and requires a strengthened role for primary care relative to acute care. However, analysis in Chapter 8 indicates that while some structural changes represent a move towards integration, the current resource allocation mechanisms in the sector may not be conducive to achieving this objective. For primary care to take on the required role at the centre of the integrated system, a number of issues need to be addressed in developing multi-disciplinary primary care teams, including staffing, infrastructure, definition of catchment populations, access to diagnostic services, and entitlement (the latter is discussed in more detail below). The absence of supportive IT structures and a unique health identifier also need to be addressed.

In particular, in Ireland, the methods by which health-care providers are reimbursed do not facilitate integration. Incentives need to be aligned across all actors in the system to ensure that individuals receive care in the most appropriate location. As described in Chapter 8, the financial incentives for providers vary both within and between sectors, affecting decisions on intensity of treatment, duration of

treatment, referral patterns, etc. This is further complicated by there being different provider payment methods for different patient types. Thus, in the Irish health care system, there are examples of inconsistencies in financial incentives across providers within the system, and for individual providers the incentives can vary across different patient types. As discussed in Chapters 3 and 6, GPs in Ireland are paid on a fee-for-service basis in respect of private patients, but on a mainly capitation basis in respect of medical card patients. These payment mechanisms incentivise opposing methods of care and referral patterns.

Incentives for users may also conflict with the incentives facing providers. For example, for GP care, the incentives for users and providers can conflict with each other and this can interfere with the functioning of an integrated system that has primary care at its centre (e.g. the first port of call for health care needs where possible). GP care for non-medical card holders is financed on the basis of direct out-of-pocket payments. While fee-for-service incentivises the provider to encourage more utilisation, the incentive for the user is in the opposite direction and, as discussed in Chapters 9 and 10, user fees are shown to discourage utilisation.

The financial incentives to users are linked with the structure of a health-care financing system. As outlined here, for a resource allocation system to be effective and to deliver integrated health care, a number of other supportive structures need to be in place. These include the way in which resources for health care are generated, discussed in more detail in the next section.

### 15.2.3 Financing

The amount of resources available for allocation depends on the structure of the health-care financing system. The health financing system feeds into the resource allocation system (i.e. without resources, there is nothing to allocate) and the way in which resources are generated can be more or less supportive of this process. Decisions on how to collect resources from individuals in order to finance health care are made at the left hand side of the resource flow diagram (i.e. the flow of resources from individuals to intermediaries/providers discussed in Chapters 9 and 10). In Chapter 10, a number of issues were identified in the Irish context that have implications for an effective resource allocation system and these are summarised here.

Public resources collected via tax or compulsory social health insurance contributions are available for allocation in the system. Chapter 9 outlines advantages and disadvantages of these mechanisms in terms of acceptability and transparency, equity, stability, administrative costs, and incentives. Public tax contributions and social health insurance contributions both introduce separation

between what people pay for health care, and what they receive. This allows the principles for collecting resources from individuals (e.g. according to ability to pay) to be separate from the principles determining how the resources are allocated (i.e. population health need). There are some features of the social health insurance mechanism that are particularly conducive to effective resource allocation. Social health insurance has the advantage of a directly observable link between available health-care resources and health-care entitlements, although this transparency can be reduced where social health insurance is supplemented by tax-based resources. Social health insurance is also automatically accompanied by mechanisms to fund service delivery that link payment to activity and this was highlighted above as an important element for effective resource allocation. A central lesson from international evidence is that there are ways of introducing many of the desired features of social health insurance in a tax-based system to improve transparency in the latter. In the Irish context, policy makers need to address problems of poor transparency around public tax-based resources, in particular the complications associated with public subsidisation of private activity in the system.

Public resources, collected from individuals via tax or social health insurance contributions, are prepayments that can be pooled and managed in a resource allocation process. Private health insurance premiums are also prepayments but these are not pooled through a public resource allocation process, although they do allow some cross subsidisation amongst insured individuals. In contrast, out-of-pocket payments are directly linked with the individual's use of the service and as such these payments are outside the public resource allocation process. However, international evidence indicates that user fees discourage both necessary and unnecessary utilisation, and have negative implications for equity. User fees in the Irish health-care system are required for a range of primary, community, continuing and acute services, and for specific population groups, and the incentive structures established by these fees do not necessarily align with the provider payment incentives. In particular, user fees play a central role in funding primary care for a large proportion of the Irish population and it is important to assess the extent to which they support or interfere with the effectiveness of the resource allocation system and integrated health-care delivery.

As discussed in Chapter 10, user fees in the Irish system act as a disincentive for non-medical card holders to register with a GP, discourage GP utilisation by non-medical card holders, and incentivise use of acute care over primary care. The structure of user fees and the criteria governing who pays the fees are determined by the health-care entitlement structures (outlined in Chapter 1). In order to align the incentives across all actors in the system and to ensure that users seek care at the most appropriate time and location, changes in the current entitlement and user fee structures are required. Section 15.3 highlights a number of anomalies in the current entitlement structures that need to be addressed for supporting effective resource

allocation and integrated care. In particular, as noted above, one of the requirements for effective integrated health care is that patients receive care that is free at the point of use, or at least at a fee that does not discourage people from seeking care when sick, and policy options for this are examined in more detail in Section 15.4. It is noted that this does not necessarily require that payment for health care shifts from a private to a public resource mechanism, but rather that payment for health care is pre paid.

#### 15.2.4 Sustainability

Sustainability is concerned with the complete flow of public and private resources within the health-care system (i.e. the complete flow illustrated in Figure 15.1 and discussed in Chapters 11-14). Fiscal sustainability refers to the ability of public revenue to meet public health expenditure needs, while economic sustainability refers to the broader question of growth in total health expenditure as a proportion of total national income. Where the opportunity cost of total expenditure on health in an economy exceeds its value (i.e. resources could be invested in other sectors and generate a greater return), health expenditure becomes economically unsustainable. With the fall in national income in recent years, there are concerns with the economic sustainability of health care in Ireland and internationally. Analysis of two key drivers of health-care expenditure in Ireland identifies a number of cost reducing options for policy makers to consider. In terms of state expenditure on pharmaceuticals and payments to pharmacists, measures which seek to ensure greater value for money such as reference pricing, contracts for sole supply and incentives for appropriate prescribing (e.g. generic prescription and substitution, clinical practice guidelines, etc.) are important elements of a strategy to ensure sustainability. The Employment Control Framework is a key component of current attempts to limit the growth in the public health pay bill. However, there are concerns that restricting the level of employment is not sufficient to ensure long-term savings in the public health pay bill. Apart from standardised and simplified pay bands and terms and conditions of employment, ensuring that the public health workforce is employed efficiently (i.e. that skills mix is maximised) is required to achieve sustainability.

#### 15.3 CURRENT ENTITLEMENT AND USER FEE STRUCTURES

The role of user fees in international health care, including Ireland, has been discussed at a number of points throughout the document. Chapter 9 assessed advantages and disadvantages of user fees as one of the mechanisms for generating health-care resources. Empirical evidence on the implications of user fees for health-care utilisation and equity, and the alignment or otherwise of user incentives with provider incentives were discussed in Chapters 8, 9 and 10. In Ireland, user fees are paid by different groups in the population for different health-care services and there are inconsistencies across the population in terms of who is exempt and who is not. The entitlement structures in the Irish system have been outlined in Chapter 1.

This section summarises the entitlement structures and highlights key inconsistencies and their implications for effective resource allocation and integrated health care.

As described in Chapter 1, the Irish population can be categorised into four broad health-care entitlement groups: medical card only with no private health insurance ('medical card'); privately insured only with no medical card ('privately insured'); individuals with both medical card and private health insurance ('dual cover'); individuals with neither medical card nor private health insurance ('non-covered'). In 2009, it is estimated that 65 per cent of the population did not hold a full medical card or a GP Visit card ('non-medical card holders'), and were therefore required to pay the out-of-pocket fee for private GP care. An estimated 46 per cent of the population held private health insurance only<sup>1</sup>, and 19 per cent of the population were non-covered.

The entitlement structure is complex, with two types of medical card (full medical card and GP Visit medical card) which are mainly allocated on the basis of means testing, but can also be granted on the basis of ill health (discretionary cards). Private health insurance mainly covers hospital care although there is some cover of primary care (for some examples see Table 10.1 in Chapter 10). In the recent announcement to sell the semi-state body, Vhi Healthcare, the Minister for Health and Children also noted the intention to prepare a new set of minimum benefits regulations for health insurance, to bring primary and other services into the set of benefits that insurers must offer (DoHC, 2010).

A number of inconsistencies can be identified in the current set of entitlements in the system, particularly with regard to providing equitable cover for publicly subsidised care, and for supporting integrated health-care delivery:

- The equity principles behind the criteria that determine whether or not an individual is eligible for a medical card are difficult to identify (Smith, 2009).
- There are large changes in costs to families who are either side of the medical card income eligibility thresholds where, for example, a person moving above the medical card income limit by a small amount may be worse off than before the pay rise. Moving from being a GP Visit card holder to a non card holder involves a jump from zero priced GP care to full-priced GP care.
- The requirement for the majority of the population to pay out-of-pocket for GP care is unique to Ireland compared to other developed countries (Smith, 2010). The deterrent effect of private GP fees is discussed in Chapters 9 and 10.
- The rationale for providing free prescription medicines, but not free GP care, for people with specified long-term conditions under the Long Term Illness (LTI)

<sup>1</sup> A total of 50 per cent of the population is estimated to hold private health insurance when the 'dual cover' group is added.



Scheme, while at the same time providing free GP care, but not free prescription medicines for GP Visit card holders (defined by income rather than illness), is not clear. The rationale underpinning what conditions are included in the LTI Scheme is also not clear. For example, diseases of the circulatory system (e.g. stroke, heart disease) are the leading cause of mortality in Ireland (DoHC, 2009) but these are not covered by the LTI Scheme.<sup>2</sup> Where an individual has multiple chronic conditions, it may be the case that none or only some of these are covered by the LTI Scheme.

- Public outpatient services in Ireland are provided at no charge to most users (i.e. referred patients), and co-payments for public inpatient care represent only a small proportion of cost. In contrast, for most of the population, primary care services including GP visits and prescription drugs dispensed in community pharmacies are charged at full price to users. These structures introduce incentives that favour the use of acute rather than primary care and interfere with objectives to ensure that people seek care at the most appropriate location in the system, and use primary care as their first port of call.
- The emphasis of private health insurance on hospital-delivered care to the detriment of that provided in the community poses particular problems. This issue has been taken up in the recent policy announcement (DoHC, 2010) but as yet it is unclear to what extent these measures will improve coverage of primary care.

## 15.4 FRAMEWORK FOR SUPPORTING THE DELIVERY OF INTEGRATED HEALTH CARE IN IRELAND

### 15.4.1 Introduction to the Framework

Key policy lessons emerge from the analysis of the complete flow of resources in the Irish health-care sector. To support integrated health care, incentives facing both patients and providers (institutional and individual) need to be aligned so as to ensure that health problems are diagnosed at the earliest opportunity, that there is continuity of care for people with chronic conditions, and that the most appropriate care takes place in the most appropriate location. Resource allocation processes and provider reimbursement mechanisms need to adjust to achieve these changes.

The health-care financing system also needs to adjust to support this process. In particular, changes to user fees and health-care entitlement structures are required to ensure that user incentives are consistent with those of all other actors in the system.<sup>3</sup> This section sets out a coherent framework of health-care entitlement and

<sup>2</sup> The LTI covers the cost of drugs (and medical and surgical appliances) that are directly related to treatment of the following illnesses: Acute Leukaemia, Cerebral Palsy, Cystic Fibrosis, Mental Handicap, Diabetes Insipidus, Diabetes Mellitus, Epilepsy, Haemophilia, Hydrocephalus, Mental Illness (in a person under 16), Multiple Sclerosis, Muscular Dystrophies, Parkinsonism, Phenylketonuria, Spina Bifida, and Conditions arising from the use of Thalidomide ([www.hse.ie](http://www.hse.ie) [last accessed 16 April 2010]).

<sup>3</sup> It is important to remember that health-care users are also exposed to, and respond to, a range of non-financial incentives.

user fees for the Irish context to align with a resource allocation system that in turn supports integrated health-care delivery.

Specifically, the framework is designed to address the following issues:

- Encourage registration with a primary care provider. Registration is associated with GPs taking continuing responsibility for their patients and is particularly important in encouraging early diagnosis of potentially serious and expensive diseases. Registration has additional advantages in managing ongoing diseases.
- Except in the case of serious medical or surgical emergencies the incentive should be to use primary care in the first instance
- It should not be cheaper for patients to make ongoing use of acute services when primary care is appropriate
- Patients should not be deterred from using services that are likely to benefit them, and should be encouraged to seek help early rather than late in the progress of an illness.

To address these issues, the framework focuses on adjusting the user fee structures in the system. In the present system, primary care for non-medical card holders operates on an episodic basis. Payment is made for specific episodes of care and there is no incentive for a patient to register with a specific primary care provider. The inconsistent structure of user fees across the community, primary and acute sectors means that non-medical card holders are not always directed to the most appropriate location for their care. The level of user fees can also discourage utilisation, particularly for lower income non-medical card holders.<sup>4</sup> Each of these features interferes with the process of delivering integrated health care across the system.

Thus, the framework sets out a structure of entitlements and user fees that facilitate policy makers in moving towards an integrated health-care delivery system. Specifically, user fees in the system need to be low enough so as not to seriously deter utilisation. Within the population, people on low incomes are more likely to be deterred by user charges than are richer people.

In the illustrated framework, all individuals currently covered by a full medical card would retain that cover. For the non-medical card population, the framework outlines a set of government subsidies that have the effect of lowering their out-of-pocket costs of private GP care, prescription medicines, and other care (i.e. a form of medical card cover for all). The subsidies are graduated such that people on lower

<sup>4</sup> As discussed in Chapter 6, growth in doctors' fees has been high over the period 2003-2009, greater than growth in average prices or average health prices over the period.

incomes would receive higher levels of subsidy. The framework also incorporates a specific focus on chronic disease management and subsidisation of chronic conditions is streamlined to address inconsistencies in the current arrangements (e.g. exclusion of certain critical conditions from the LTI).

A key consideration for policy makers is how to ensure that alternative financing arrangements could be accommodated without having destabilising impacts on resource or physical capacity in the system. The framework can be assessed along the following dimensions (see Section 15.6):

- Affordability
- Feasibility– the bureaucratic/capacity barriers to implementation
- Administrative costs (simple and inexpensive to administer)
- Equity in financing–separation between need for health-care and ability to pay for care.

## 15.4.2 Structure of the Framework

### 15.4.2.1 Overview of the Framework

The framework takes as its starting point the existing entitlement structures of the system. The key concept of the medical card is retained but this is developed further such that a form of medical card cover is extended to the rest of the population, although with graduated levels of public subsidisation attached. The framework provides for a more consistent and logical set of entitlements that encompasses all individuals in the population. This contrasts with the existing mix of schemes which cover different services or combinations of services, each with different eligibility criteria and entitlements giving rise to inconsistent public subsidies in the system.

Specifically, the framework provides for four categories of entitlement, labelled: 'Standard', 'Standard Plus', 'Enhanced', and 'Comprehensive', and these are described below. For illustrative purposes, the framework is presented with examples of the user fees and levels of subsidy that could apply in each of the categories. At a minimum, it is proposed to replace the existing 20 per cent tax relief on GP and prescription medicine expenses with a direct subsidy. In the current system, 20 per cent tax relief is granted on health expenses that are not otherwise reimbursed by the Government or by private health insurers. An estimated €84.5m was granted in tax relief on GP and prescription expenses in 2009 prices.<sup>5</sup> This relief is not targeted, is not directly linked with encouraging continuity of care, and the

<sup>5</sup> The breakdown of tax relief on health expenses is not publicly available in the statistical reports from the Revenue Commissioners. The Competition Authority estimated that a quarter of these claims refer to doctors' fees (i.e. GPs and other physicians) amounting to approximately €34m in 2005 (Competition Authority, 2009). It is estimated here that 20 per cent of total health expenses tax relief refers to GP expenses, and 20 per cent refers to drug expenses.

extent to which the relief is taken up in the population is variable and uncertain.<sup>6</sup> As will be outlined below, the framework takes an alternative approach using direct subsidies that are linked with specific objectives (e.g. registration with a primary care provider) rather than indirect tax relief.

Estimates of the cost to the Government of the subsidies in the framework are also outlined. However, it is important to note that the level of subsidisation in the framework, and the associated costs to government, would be ultimately determined by the availability of government resources (i.e. to finance the subsidies), physical capacity within the sector (e.g. to meet additional demand), and provider payment negotiations. The key objective here is to outline a coherent structure within which to organise entitlement to health care that supports integrated health-care delivery. The exact levels of subsidisation within that structure would require comprehensive analysis of cost and capacity constraints in the sector.

The following outlines the four categories in the framework.

#### 15.4.2.2 Categories of Entitlement

##### *Standard Primary Care Cards*

The Standard Primary Care card would entitle the holder to avail of GP visits at a capped fee (say €40 per visit), and prescription medicines at 80 per cent of the price, up to a maximum payment of €95 per month. This maximum payment is equivalent to 80 per cent of the current monthly threshold of €120 under the DP Scheme, above which the out-of-pocket cost of drugs falls to zero.<sup>7</sup> The subsidy on prescription payments below the DP monthly out-of-pocket payment threshold replaces the 20 per cent tax relief that is currently available on out-of-pocket drug expenses with a more direct 20 per cent subsidy.

In the short term at least, individuals covered by this card would still make a co-payment for inpatient hospital care. In time the Standard card holders might be allowed free access to a specified range of community health services that were previously available in hospital settings as community service provision is strengthened to support greater integration in health-care delivery (see Chapter 8).

The Standard card would be available to all individuals without means testing and would replace the current Drugs Payment (DP) Scheme card. The card would be

<sup>6</sup> It has been estimated that as much as 60 per cent of potential refunds from this relief have not been claimed, and there have been calls for public information campaigns to increase its uptake (Dail Eireann, 2006).

<sup>7</sup> Figures are rounded for presentational purposes (i.e. 80 per cent of the monthly threshold of €120 is €96, etc.).

issued when registration with a single primary care provider is verified. Those unwilling to register with a primary care provider would pay unregulated prices for private consultations as at present. The primary care provider would be paid a capitation fee for each registered person (in addition to the fixed user fee). The level of the capitation fee would be set taking into account the reduction in the fixed user fee compared with the current unregulated charges for private GP visits.

The changes in user fee structures for this part of the population are modest. However, the proposed arrangement would replace an existing commercial relationship in primary care (i.e. between the private patient and the GP) with a fixed user fee, and would bring the whole population into a single policy framework on primary care access and fees. The Government cost of the Standard card depends on a number of factors, including the level of subsidy granted on GP care and on 'below the threshold' prescription subsidisation. As illustrated below, Standard cards could be subsidised at an initial rate that would impose no additional cost to government.

#### *Standard Plus Primary Care Cards*

Standard Plus Primary Care cards would entitle the holder to a lower user fee for GP visits (say €30 per visit) relative to Standard card holders. For prescription drugs, the Standard Plus card holders would pay 60 per cent of the price up to a maximum out-of-pocket payment of €70 per month. This maximum payment is equivalent to 60 per cent of the current monthly threshold of €120 under the DP Scheme, above which the out-of-pocket cost of drugs falls to zero. As with the Standard card, in the short run individuals covered by this card would still make a co-payment for inpatient hospital care, but might in time be allowed free access to a specified range of community health services.

Eligibility for the Standard Plus card would be determined by a means test and would be available to members of households with incomes between 40 and 50 per cent of the national average. Standard Plus cards would also be issued to certain individuals who have a need for frequent visits to GPs to monitor a high risk condition (e.g. high blood pressure). In the cost estimates outlined below, the estimated number of non-medical card holders diagnosed with hypertension (high blood pressure) are granted a Standard Plus card. In an alternative scenario, the number of non-medical card holders categorised with a high risk of cardiovascular disease are granted a Standard Plus card instead of the full number of hypertension cases.

Individuals covered by a Standard Plus card would be required to register with a primary care provider. The primary care provider would be paid a capitation fee in respect of each registered Standard Plus card holder (in addition to the fixed user fee). As with the Standard card, the level of the capitation fee would be set taking

into account the reduction in the fixed user fee compared with the current unregulated charges for private GP visits.

#### *Enhanced Primary Care Cards*

An Enhanced Primary Care card would replace the GP Visit card. The card would entitle the holder to a lower user fee for GP visits (say €20 per visit) relative to the Standard Plus and Standard card holders. The holder of the Enhanced card would pay 40 per cent of the price of prescription medicines up to a maximum out-of-pocket payment of €40 per month. This maximum payment is equivalent to 40 per cent of a monthly threshold of €100. This monthly threshold is lower than the current DP threshold of €120 and reflects the fact that, under the framework, the 20 per cent tax relief on out-of-pocket prescription medicine expenses is abolished.<sup>8</sup> As with the Standard and Standard Plus cards, at least in the short-run, holders of the Enhanced cards would still make a co-payment for inpatient hospital care, but in time would be allowed free access to a specified range of community health services, especially those relating to community management of chronic diseases.

Eligibility for the Enhanced card would be determined by a means test and would be available to members of households with incomes between 30 and 40 per cent of the national average. Enhanced cards would also be granted to people with established chronic diseases (e.g. coronary heart disease, heart failure, stroke, chronic mental illness etc.), including those who are currently covered by the LTI Scheme (i.e. abolishing this scheme), as these require regular primary care consultation and treatment.

Individuals covered by an Enhanced card would be required to register with a primary care provider. The primary care provider would be paid a capitation fee in respect of each registered holder of an Enhanced card (in addition to the fixed user fee). As with the Standard and Standard Plus cards, the level of the capitation fee would be set taking into account the reduction in the fixed user fee compared with the current unregulated charges for private GP visits.

#### *Comprehensive Primary Care Cards*

Individuals currently entitled to a full medical card (including dependants) would continue to have the same rights as at present (including those aged 70 and older where the income eligibility thresholds are different to those for a full medical card).

<sup>8</sup> At the current DP monthly out-of-pocket payment threshold of €120 the maximum potential tax rebate is €24 with 20 per cent tax relief. The reduction in the threshold to compensate for abolishing the 20 per cent tax relief is rounded to €100 for presentation purposes.

New Comprehensive cards (i.e. the full medical card) would be available to all members of households with incomes that fall in the lowest 30 per cent in the population. Comprehensive cards would also be issued to all people currently eligible for the High Tech Drugs (HTD) Scheme (thereby abolishing this scheme).

It is noted that full medical cards grant non- health-related benefits (e.g. exemptions from payment of the health levy, etc.) but these are not extended in the context of this framework.

#### *Private Health Insurance and Primary/Community Services Packages*

Private health insurance companies might offer access to primary and community services either directly or by purchasing upgrades to Comprehensive cards (or both). If privately insured individuals were to be given the opportunity to buy a Comprehensive card, the 20 per cent tax relief that they had already received on their private health insurance premium would be required to be taken into account to avoid double subsidisation.

Table 15.1 summarises the framework entitlement structures for GP care and prescription medicines as they have been outlined here. For comparison, the existing entitlement and user fee structures for these services that apply for non-medical card holders are included.

**TABLE 15.1**  
Illustrative Pattern of Entitlement and User Fees for GP Care and Prescription Medicines in the Proposed Framework

Primary Care Card	Who is Covered	Primary Care			Prescription Medicines				
		Current Entitlement		Framework Entitlement	Current Entitlement		Framework Entitlement		
		User fee per GP visit	Subsidy per GP visit	User fee per GP visit	User fee	Subsidy	User fee		
Standard	All individuals registered with a GP	€45-€60	0 (Tax relief at 20%)	€40	€5 (Paid as capitation to GP)	Max. €120 per month	100% above monthly threshold (Tax relief at 20% on 'below the threshold' payments)	Prescription medicines at 80% of the price up to maximum out-of-pocket payment of €95 per month	20% subsidy on out-of-pocket payments up to €25 per month, and 100% above monthly threshold (€120)
Standard Plus	Means-tested (incomes between 40% and 50% of national average) and high risk of illness (e.g. cardiovascular disease)	€45-€60	0 (Tax relief at 20%)	€30	€15 (Paid as capitation to GP)	Max. €120 per month	100% above monthly threshold (Tax relief at 20% on 'below the threshold' payments)	Prescription medicines at 60% of the price up to maximum out-of-pocket payment of €70 per month	40% subsidy on out-of-pocket payments up to €50 per month, and 100% above monthly threshold (€120)
Enhanced	Means-tested (incomes between 30% and 40% of national average) and chronic illness <sup>b,c</sup>	€45-€60	0 (Tax relief at 20%)	€20	€25 (Paid as capitation to GP)	Max. €120 per month	100% above monthly threshold (Tax relief at 20% on 'below the threshold' payments)	Prescription medicines at 40% of the price up to maximum out-of-pocket payment of €40 per month	60% subsidy on out-of-pocket payments up to €60 per month, and 100% above monthly threshold (€100)
Comprehensive	Means-tested (incomes below 30% of national average) <sup>d,e</sup>	€45-€60	100% (Paid as capitation to GP)	€0	100% (Paid as capitation to GP)	Max. €120 per month	100% above monthly threshold (Tax relief at 20% on 'below the threshold' payments)	€0	100% subsidy on all out-of-pocket payments

Notes:

<sup>a</sup> The subsidy indicated in this table is based on a total payment (i.e. user fee plus subsidy) to GP per visit of €45. Where the total payment is higher, the subsidy is larger.

<sup>b</sup> Claimants in the LTI Scheme are granted an Enhanced card in the framework. The current entitlement under the LTI Scheme is 100 per cent subsidy on drugs for the specified disease, with no subsidy on GP visits.

<sup>c</sup> The Enhanced card replaces the GP Visit card. Existing GP Visit card holders are entitled to zero GP fees. The focus in this table is on the change in user fees facing those who are currently non-medical card holders.

<sup>d</sup> Claimants in the HTD Scheme are granted a Comprehensive card in the framework. The current entitlement under the HTD Scheme is 100 per cent subsidy on specified drugs, with no subsidy on GP visits.

<sup>e</sup> Existing medical card holders would retain their entitlement to zero GP and prescription medicine fees. The focus in this table is on the change in user fees facing those who are currently non-medical card holders.



### 15.4.2.3 Provider Payments

The framework entails some changes in how providers are reimbursed although it is important to note that the framework is voluntary - individuals/families can choose to apply for one of the primary care cards, and providers can choose to participate.

The payments to participating GPs would be as follows:

- Standard/Standard Plus/Enhanced cards: GPs would receive a fixed user fee per visit from individuals covered by these cards (e.g. €40 per visit from Standard card holders, €30 per visit from Standard Plus card holders, €20 per visit from holders of the Enhanced card). The user fee income would be supplemented by Government subsidies, paid in the form of an annual capitation fee to GPs. The level of subsidy is graded and increases from Standard to Standard Plus to Enhanced.
- Comprehensive card: GPs would receive an annual capitation payment from the Government as under the existing medical card scheme in respect of all those covered by a Comprehensive card. As agreed under the General Medical Services (GMS) contract, no user fees are charged to the patient at the point of use.

For prescription medicines, the Government subsidises the out-of-pocket medicine expenses paid by card holders. Government payments to pharmacists would be as follows:

- Standard / Standard Plus cards: The Government pays for 20/40 per cent of the card holder's prescription expenses that fall below the DP threshold (€120 per month). Above the threshold, the Government pays 100 per cent of the prescription expenses. Under the framework, Government payments to pharmacists in respect of all primary care card holders would be managed within the same scheme thereby removing any distinction between the prices paid under the GMS, DP or other schemes.
- Enhanced cards: The Government pays for 60 per cent of the prescription expenses that fall below a lower monthly out-of-pocket payment threshold of €100 (and 100 per cent of the expenses above that threshold).
- Comprehensive cards: The Government pays for 100 per cent of the (eligible) prescription cost in respect of those covered by a Comprehensive card.

#### 15.4.2.4 Adjustments in the Framework

The framework outlines a graduated level of subsidisation for the population ranked by income, with specific provision for preventing and treating long-term conditions. While not all of the framework may be implemented at once, the intention is to provide a structure within which policy makers can make decisions on health-care entitlements that are coherent and consistent with the ultimate aim of supporting effective resource allocation and integrated health-care delivery. That structure is flexible and can be adjusted to reflect existing resource and capacity constraints. For example, the level of subsidy can be calibrated to different rates. Over time, and in line with available resources, the entitlements in the system can be expanded in a number of ways (e.g. adjusting the eligibility thresholds to allow more people to qualify for higher subsidy, adjusting the rates of subsidy in each category).

### 15.5 PRELIMINARY COSTS OF THE FRAMEWORK

#### 15.5.1 Introduction to the Framework Cost Estimates

The suggested framework for funding primary and community health-care services grants different levels of government subsidisation on the basis of income and chronic disease. The framework has been illustrated here with specific examples of the rates at which the user fees for GP care would be capped, and the rates of subsidisation for prescription medicines. Available data allow preliminary estimation of these GP and prescription costs within the framework and these are outlined here. The cost estimates are based on the best available data, referring to population and estimated expenditure data for the year 2009 (unless otherwise stated). A range of sensitivity analyses are also undertaken, in order to check the robustness of the estimated costs and to highlight important policy issues.

The focus here is on identifying the net additional government costs that are implied by the proposed framework. These costs need to be carefully assessed in light of existing resource constraints in the sector. Staged implementation of the framework would be required, given that resources need to be freed from elsewhere in the sector to finance the changes in entitlement. Technical efficiencies within the sector can be expected to release resources (see Chapter 14). Most of the cost increase to the Government would reflect reduced out-of-pocket spending by patients, but a part would also come from higher utilisation from patients who were previously deterred by high user fees from seeking appropriate medical attention. In the longer term, cost savings from better management of chronic conditions (e.g. reduced use of hospital-based care) would also need to be quantified but are not included here.

## 15.5.2 Data

### 15.5.2.1 Population by Income and Chronic Conditions

Current holders of the full medical card retain this card in the framework and the costs of covering existing medical card holders are already included in current government expenditure. The focus here is on the cost of extending government subsidisation to the non-medical card population.

In the framework, eligibility for the different levels of government subsidisation is granted on the basis of income. Data from the 2007 wave of the European Survey on Income and Living Conditions (CSO, 2007) are used to estimate the breakdown of the population by average household disposable income.

Table 15.2 gives the distribution of mean weekly household disposable income (i.e. gross income that is net of tax and pay related social insurance (PRSI) contributions) by different income groups. In the framework, a Comprehensive card is granted to all those with an income in the poorest 30 per cent of the population and to those covered by the HTD Scheme. The Enhanced card is granted to those with incomes that fall in the 4th decile. The Standard Plus card is granted to those with incomes in the 5th decile. The Standard card is granted to those with incomes in the richest 50 per cent of the population. For comparison, Table 15.3 gives the mean weekly household disposable income for the four main health-care entitlement groups that were outlined in Chapter 1. Mean incomes by income group do not map directly to mean incomes by health-care entitlement group, but it is possible to rank the entitlement groups broadly according to increasing mean income (from the medical card only to the privately insured group). The mean income of the medical card only group is higher than the mean income for the poorest 30 per cent in the population, indicating that the majority of individuals in the lower income deciles are likely to be already covered by a medical card.

**TABLE 15.2**

Mean Weekly Household Disposable Income by Income Group, 2007 (€)

	Poorest 30%	Decile 4	Decile 5	Richest 50%	Mean
	€	€	€	€	€
Mean net weekly income per household	420	698	843	1,618	1,100
95% Confidence interval	(416 – 424)	(696 – 701)	(841 – 845)	(1,593 – 1,644)	

Source: CSO, 2007

**TABLE 15.3**Mean Weekly Household Disposable Income by Health-Care Entitlement Status, 2007 (€)<sup>9</sup>

	Medical Card Only	Dual Cover	Non-Covered	Privately Insured Only	Mean
	€	€	€	€	€
Mean net weekly income per household	601	746	1,010	1,529	1,099
95% Confidence interval	(591–611)	(721 – 771)	(990 – 1,030)	(1498 – 1560)	

Source: CSO, 2007

The framework also grants eligibility on the basis of chronic illness. Data on the prevalence of selected chronic illnesses are used here to give preliminary estimates of the costs of subsidising GP care and prescription medicines for those with chronic conditions. Table 15.4 outlines the estimated number of non-medical card cases with a diagnosis of angina/heart attack and stroke, together with the estimated number of claimants to the LTI and HTD Schemes in 2009.<sup>10</sup> The Comprehensive card is granted to all those in the HTD Scheme.<sup>11</sup> The Enhanced card is granted to those with a diagnosis of angina, heart attack or stroke, and to those in the LTI Scheme. Table 15.4 also outlines the estimated number of non-medical card holders with hypertension (high blood pressure). In the version of the framework outlined above these individuals are eligible for a Standard Plus card. However, it can be argued that it is more appropriate to focus on those who are more specifically identified as having a high risk of developing a cardiovascular disease (i.e. a subset of those with hypertension), and the cost implications of focusing on this group are examined in sensitivity analysis (Appendix 7.1).

The income profile of each of these groups is required in order to avoid double counting (i.e. it is important to identify the number of individuals with the specified chronic conditions within each relevant income decile in the non-medical card population). The income profile of the number of individuals included in Table 15.4 is estimated using survey data on the average incomes of individuals who report the presence of one or more chronic conditions (CSO, 2007).

<sup>9</sup> There are missing observations on health-care entitlement status for some households in the data and thus the mean income across all households in Table 15.3, where households are categorised by entitlement status, is slightly different to that in Table 15.2 where households are categorised by income group.

<sup>10</sup> There is no control for people who suffer from more than one condition giving rise to some double counting in the cost estimates.

<sup>11</sup> As some holders of HTD cards may also hold a medical card, the estimated additional costs to Government of granting a Comprehensive card to all HTD claimants will be an overestimate. More detailed data are required to refine this estimate further.

**TABLE 15.4**

Estimated Number of Non-Medical Card Holders with Selected Chronic Conditions, 2009

	Number (Non-Medical Card Holders) 2009
High Tech Drugs Scheme <sup>a</sup>	54,466
Long Term Illness Scheme <sup>a</sup>	64,472
<b>Chronic conditions (prevalence)</b>	
Angina and heart attack	52,330
Stroke	16,744
Hypertension	461,511
High risk of cardiovascular disease	131,158

Note: <sup>a</sup> Estimated number of claimants in 2009

Sources: Calculated from Truelsen *et al.*, 2006; PCRS communication adapted from PCRS, 2008; Balanda *et al.*, 2010; Collins *et al.*, 2010; CSO, 2010

### 15.5.2.2 GP Costs

#### *Poorest 30 Per Cent and HTD Scheme (Comprehensive Card)*

The framework provides a Comprehensive Primary Care card to non-medical card holders with an income in the lowest 30 per cent of the population, and to all HTD claimants. The GP portion of the Comprehensive card cost is estimated for this group and these costs are based on the costs of GP care under the existing medical card scheme. GPs are paid a capitation rate in respect of current medical card holders, and the capitation rates are stratified by age, sex and distance of residence from the GP surgery. GPs receive fees for a range of services provided to medical card holders (e.g. sutures, etc.). Allowances for secretarial/nursing support, sick leave, study leave, training other functions are also granted and for most of these, and the size of the allowance varies by the number of patients on the GPs' GMS lists (see Chapter 6). Average expenditure on fees and allowances per medical card holder is obtained from Primary Care Reimbursement Service (PCRS) expenditure data. The average cost of GP care per medical card holder is estimated using these data, and this is weighted by the age/sex profile of the non-medical card population. This average cost is factored up by the number of non-medical card holders in the lowest 30 per cent of the income distribution, or with a HTD card.<sup>12</sup>

#### *Incomes above 30th Percentile and Chronic Conditions (Standard, Standard Plus and Enhanced Cards)*

The framework provides for the subsidisation of private GP care for non-medical card holders on incomes above the 30th percentile, and for people with specified chronic conditions, at varying rates of subsidy.

<sup>12</sup> There is a discrepancy between the number of people registered as eligible for the LTI/HTD Schemes and the number of claimants in any one year. The framework costs have focused on the costs of providing subsidised cover for the estimated number of claimants in 2009. In addition, as some holders of HTD cards may also hold a medical card, the estimated additional costs to Government of extending free GP care to all HTD claimants will be an overestimate. More detailed data are required to refine this estimate further.

In the version of the framework outlined above, the user fee per GP visit is capped at €40 for Standard card holders, €30 for Standard Plus card holders, and €20 for holders of the Enhanced card. These user fees are supplemented by Government subsidy in the form of an annual capitation payment to GPs in respect of each registered card holder. Thus, the costs to the Government of the GP subsidy will depend in part on the level of subsidy that is negotiated with GPs.

Currently, available data indicate that GPs in Ireland receive between €45 to €60 per private GP visit (Competition Authority, 2009), giving a national average of €52.50 per visit, or €51 as estimated in a recent consumer survey (National Consumer Agency, 2010). Under the GMS scheme, it is estimated that the average public payment per GP visit by medical card holders is approximately €60 per visit.<sup>13</sup>

To allow for the uncertainty around the level of capitation that would be agreed with GPs in the context of the proposed framework, the costs of the GP subsidy are estimated on the basis of three different unit costs (i.e. referring here to the user fee plus subsidy) per visit:

- At the lower bound, the GP receives the equivalent of €45 per visit in total (i.e. inclusive of user fee and subsidy). In this case, the level of subsidy would increase from 11 per cent for Standard card holders (i.e. user fee per visit of €40, subsidy equivalent to €5 per visit), to 33 per cent for Standard Plus card holders (i.e. user fee per visit of €30, subsidy at €15 per visit), to 56 per cent for holders of the Enhanced card (i.e. user fee per visit of €20, subsidy at €25).
- At the mid-range, the GP receives the equivalent of €50 per visit in total, which is close to the current national average charge per private GP visit.<sup>14</sup>
- At the upper bound, the GP receives the equivalent of €60 per visit in total, consistent with what GPs currently receive under the GMS Scheme.

The costs to the Government of the GP subsidy also depend on the number of people eligible for the subsidy and their level of GP utilisation. The Standard card is granted to non-medical card holders with incomes at or above the 6<sup>th</sup> decile in the income distribution. The Standard Plus card is granted to non-medical card holders with incomes at the 5<sup>th</sup> decile, and to those with high blood pressure (or alternatively, those at high risk of developing cardiovascular disease, see Appendix 7.1). The Enhanced card is allocated to non-medical card holders with incomes in the 4<sup>th</sup> decile and to those with specified chronic conditions (estimated here for angina, heart attack, stroke and LTI claimants).

<sup>13</sup> The Competition Authority estimated an average public payment of €64 per GP visit (Competition Authority, 2009). A similar estimate is given in Chapter 6 where the focus is on the trend in the average payment per GMS visit over time. In this analysis, the more detailed estimate of €60 per visit per medical card holder in 2009 adjusts for fees and allowances that do not directly relate to medical card holders, and adjusts for utilisation by GP Visit card holders.

<sup>14</sup> The average private GP charge in Ireland is rounded to €50 for ease of presentation.

The average number of GP visits per year by medical card and non-medical card holders is outlined in Table 15.5, drawing on available survey data. By capping the user fee that non-medical card holders have to pay for private GP visits, some increase in GP utilisation, particularly amongst those with a chronic condition, is expected. To allow for this, the total annual costs of GP care for the non-medical card holders who have angina/heart attack/stroke/hypertension are calculated by multiplying the unit cost of a GP visit (i.e. user fee plus subsidy) by average annual GP utilisation rates observed in the medical card population. For the rest of the non-medical card population, the annual costs of GP care are calculated on the basis of average utilisation rates observed in the non-medical card population.

**TABLE 15.5**  
Average Number of GP Visits per Person per Year by Entitlement, Age and Sex, 2007

Age Group	Medical Card		Non-Medical Card	
	Male	Female	Male	Female
0-4	3.6	2.7	3.6	2.2
5-11	2.8	2.4	1.5	1.5
12-15	1.7	2.0	0.9	1.0
16-44	4.6	4.6	1.7	1.7
45-64	6.2	6.2	1.7	1.7
65+	5.4	5.4	1.7	1.7
	Male and Female		Male and Female	
Average (age 18+)	5.3		2.1	

*Note:* GP utilisation patterns for children (under the age of 18 years) are not available in the 2007 Quarterly National Household Survey Health Module. Data on GP utilisation patterns by children are available from the 1987 Survey of Income Distribution, Poverty and Usage of State Services (ESRI, 1987). Up-to-date data on GP utilisation rates by 9-year-olds are available from the Growing Up in Ireland cohort study, indicating that the average number of GP visits for 9-year-olds is 1.4-1.5 for medical card holders and 0.7-0.8 for non-medical card holders (Williams *et al.*, 2009). To generate conservative cost estimates, the higher utilisation rates given in the 1987 data are used in the analysis. It is not clear whether or not the utilisation data for children in this table include scheduled visits for immunisations and further data are needed to examine this.

*Sources:* ESRI, 1987; CSO, 2008

### 15.5.2.3 Prescription Costs

#### *Poorest 30 Per Cent and HTD Scheme (Comprehensive Cards)*

The Comprehensive card, granted in the framework to non-medical card holders with an income in the lowest 30 per cent of the population, and to people in the HTD Scheme, covers the full cost of prescription medicines for those individuals.

Non-medical card holders are currently eligible to receive subsidisation of the cost of prescription medicines under the DP Scheme. The full cost of prescriptions is paid by the Government above a monthly out-of-pocket threshold of €120 and this is already included in current government expenditure (approximately €335m in 2009).<sup>15</sup> This analysis estimates the additional cost to the Government of fully covering the out-of-pocket payments by non-medical card holders (i.e. the out-of-pocket payments below the DP monthly threshold) in the poorest 30 per cent of the population.

<sup>15</sup> PCRS communication adapted from PCRS (2008).

Two estimates of annual per capita out-of-pocket expenditure on prescription medicines are used. The first is the average patient contribution to the DP Scheme estimated by the PCRS, adjusted to 2009 prices (less than €300 per person per annum). The second, to give a high estimate, is based on the average cost of prescription medicines per medical card holder under the GMS (weighted by the age/sex profile of the non-medical card population). The full cost of prescription medicines for HTD claimants is already included in current government expenditure and is not included in this analysis.

#### *Incomes above 30th Percentile and Chronic Conditions (Standard, Standard Plus and Enhanced Cards)*

The framework provides for the subsidisation of the out-of-pocket prescription payments (i.e. payments below the €120 monthly DP threshold) at varying rates, for non-medical card holders above the 30th percentile and for people with specified chronic conditions.

In the version of the framework outlined above, a 20 (40) per cent subsidy is granted on out-of-pocket prescription expenses below the monthly threshold of €120 ('below the threshold' payments) to Standard (Standard Plus) card holders.

A 60 per cent subsidy is granted to Enhanced card holders on out-of-pocket expenses below a revised monthly threshold of €100. The threshold is revised to take into account the abolition of the tax relief on prescription expenses, and the 60 per cent subsidy provides for additional financial support on top of that. The cost estimates make some adjustment for the fact that for these card holders, government subsidisation increases from 60 per cent to 100 per cent at a lower threshold than is currently the case under the DP Scheme. However, further data on out-of-pocket prescription expenses is required to refine this analysis. The full cost of prescription medicines for LTI claimants is already included in current government expenditure and is not included in this analysis.<sup>16</sup>

<sup>16</sup> In the framework, LTI claimants are granted an Enhanced card which provides for 60 per cent subsidisation of 'below the threshold' prescription expenses. LTI claimants currently receive 100 per cent subsidisation on all prescription expenses for a specified condition. Thus, in the framework, there would be some increase in the out-of-pocket payment required (and some reduction in the cost to Government), although this is in the context of also providing subsidised GP care which is currently not available under the LTI. More detailed data are required to estimate the impact on Government prescription costs of transferring LTI claimants to Enhanced card eligibility. Given the relatively small number of claimants involved, the impact on total costs in the framework is expected to be small.



#### 15.5.2.4 Additional Costs

Additional costs of providing a Comprehensive card for those with incomes in the lowest 30 per cent of the distribution and to the HTD claimants refer to hospital inpatient costs and community health-care services. These are not estimated here due to data limitations.

### 15.5.3 Cost Estimates

#### 15.5.3.1 Baseline GP Costs

Table 15.6 presents the costs of providing a GP visit subsidy at different rates for different income groups in the non-medical card population, and for those with specific chronic conditions.

The estimated cost to the Government of allowing Standard card holders to avail of private GP visits at a fixed user fee of €40 per visit is €15m where the total payment to the GP is set at the lower limit of €45 per visit (i.e. government subsidy is equivalent to €5 per visit). This increases to €31m where the total GP payment is €50 per visit, and to €61m where the total GP payment is at the upper limit of €60 per visit.

The estimated government cost of allowing Standard Plus card holders to avail of a fixed user fee of €30 per GP visit ranges from €30-€59m depending on the total per visit payment to GPs. The cost to government of allowing holders of the Enhanced card to avail of GP visits at a fixed user fee of €20 is estimated to range from €25-€39m (depending on the total per visit payment to GPs). The estimated government cost of GP care under the Comprehensive card, covering non-medical card holders in the poorest 30 per cent of the income distribution and HTD claimants, is €118m.<sup>17</sup>

In total, the additional government costs of subsidising GP care as outlined in this particular version of the framework are estimated to be between €187 and €278m in 2009 prices, equivalent to 1.3-1.9 per cent of net non-capital public health expenditure in 2009.

<sup>17</sup> As noted, this includes some double counting for HTD claimants already covered by a medical card.

**TABLE 15.6**  
Estimated Framework Costs of GP Subsidisation for Non-Medical Card Holders, 2009

Primary Care Card	Payment to GP at Lower Limit <sup>a</sup>				Payment to GP Average <sup>a</sup>				Payment to GP at Upper Limit <sup>a</sup>						
	User fee per GP visit	Subsidy per GP visit <sup>b</sup>	Total out-of-pocket payment per year	Total subsidy per year	Total GP cost per year	User fee per GP visit	Subsidy per GP visit	Total out-of-pocket payment per year	Total subsidy per year	Total GP cost per year	User fee per GP visit	Subsidy per GP visit	Total out-of-pocket payment per year	Total subsidy per year	Total GP cost per year
	€	€	€'000	€'000	€'000	€	€	€'000	€'000	€'000	€	€	€'000	€'000	€'000
Standard <sup>c</sup>	40	5	122,454	15,307	137,761	40	10	122,454	30,614	153,068	40	20	122,454	61,227	183,681
Standard Plus <sup>d</sup>	30	15	59,295	29,647	88,942	30	20	59,295	39,530	98,825	30	30	59,295	59,295	118,589
Enhanced <sup>e</sup>	20	25	19,698	24,622	44,320	20	30	19,698	29,546	49,244	20	40	19,698	39,395	59,093
Comprehensive <sup>f</sup>	0	n/a <sup>g</sup>	-	117,904	117,904	0	n/a <sup>g</sup>	-	117,904	117,904	0	n/a <sup>g</sup>	-	117,904	117,904
<b>Total cost of GP care</b>			<b>201,446</b>	<b>187,480</b>	<b>388,927</b>			<b>201,446</b>	<b>217,594</b>	<b>419,040</b>			<b>201,446</b>	<b>277,821</b>	<b>479,267</b>

Notes: <sup>a</sup> The full payment to the GP per private visit is €45 at the lower limit, €50 at the average, and €60 at the upper limit.

<sup>b</sup> Subsidy on private GP visits paid as capitation fee to participating GPs.

<sup>c</sup> Covers non-medical card holders with incomes in the upper 50 per cent of the income distribution and who do not suffer from chronic illness/hypertension.

<sup>d</sup> Covers non-medical card holders with incomes between 40 and 50 per cent of the national average, and those with a diagnosis of hypertension.

<sup>e</sup> Covers non-medical card holders with incomes between 30 and 40 per cent of the national average, and those suffering from angina/heart attack/stroke, and LTI claimants.

<sup>f</sup> Covers non-medical card holders in the lowest 30 per cent of the income distribution, and HTD claimants.

<sup>g</sup> Not applicable. GP costs for Comprehensive card holders are estimated on the basis of average capitation, fee and allowance payments in the medical card scheme.

### 15.5.3.2 Baseline Prescription Costs

Table 15.7 presents the estimated costs of subsidising out-of-pocket prescription expenses for non-medical card holders in the population. The level of subsidisation varies from 20 per cent on 'below the threshold payments' for Standard card holders (where the threshold is set at €120 per month), up to 60 per cent for holders of the Enhanced card (where the threshold is set at €100 per month), and 100 per cent for Comprehensive card holders. As noted earlier, the prescription costs for LTI/HTD claimants are already included in current government expenditure (approximately €461m in 2009).<sup>18</sup> Payments 'above the threshold' under the DP Scheme are also already included in government expenditure (although with the revised thresholds for the Enhanced card from €120 to €100, the estimates in Table 15.7 incorporate some additional 'above the threshold' government costs in respect of these card holders).

The estimated government cost of subsidising 'below the threshold' prescription medicines expenses at 20 per cent for Standard card holders is €95m (under the low cost scenario), increasing to €158m under the high cost scenario.

The additional cost to government of subsidising prescription expenses at 40 per cent for Standard Plus card holders, up to a monthly threshold of €120, is estimated to range from €68 to €113m. For holders of the Enhanced card, the additional government cost of subsidising prescription medicine expenses at 60 per cent, up to a monthly threshold of €100, is estimated to be between €51 and €86m. For Comprehensive card holders (excluding any HTD claimants) the additional government cost of prescription medicines under the framework is estimated to be between €111 and €184m.

In total, the additional government costs of subsidising prescription expenses under this version of the framework are estimated to be between €326 and €541m, equivalent to 2.2 – 3.7 per cent of net non-capital public health expenditure in 2009.

<sup>18</sup> PCRS communication adapted from PCRS (2008).

**TABLE 15.7**  
Estimated Framework Costs of Prescription Medicine Subsidisation for Non-Medical Card Holders, 2009

Primary Care Card	Low Prescription Costs <sup>a</sup>			High Prescription Costs <sup>b</sup>		
	Total out-of-pocket payments per year	Total subsidy per year	Total prescription costs per year <sup>c</sup>	Total out-of-pocket payments per year	Total subsidy per year	Total prescription costs per year <sup>c</sup>
	€'000	€'000	€'000	€'000	€'000	€'000
Standard <sup>d</sup>	381,176	95,294	476,470	633,311	158,328	791,639
Standard Plus <sup>e</sup>	102,082	68,055	170,137	169,606	113,071	282,677
Enhanced <sup>f</sup>	25,745	51,490	77,235	42,775	85,549	128,324
Comprehensive <sup>g</sup>	-	110,707	110,707	-	183,936	183,936
<b>Total cost of prescription medicines</b>	<b>509,004</b>	<b>325,547</b>	<b>834,551</b>	<b>845,692</b>	<b>540,885</b>	<b>1,386,577</b>

- Notes:
- <sup>a</sup> Prescription costs based on estimated average patient out-of-pocket contributions in the DP Scheme.
  - <sup>b</sup> Prescription costs based on average cost of prescription medicines per medical card holder in the GMS (weighted by age/sex profile of non-medical card population).
  - <sup>c</sup> Existing government expenditure on prescription costs are not included here (DP, LTI, HTD Scheme expenditure) as the focus in this table is on additional government costs of the framework.
  - <sup>d</sup> Covers non-medical card holders with incomes in the upper 50 per cent of the income distribution and who do not suffer from chronic illness/hypertension.
  - <sup>e</sup> Covers non-medical card holders with incomes between 40 and 50 per cent of the national average, and those with a diagnosis of hypertension.
  - <sup>f</sup> Covers non-medical card holders with incomes between 30 and 40 per cent of the national average, and those suffering from angina/heart attack/stroke, and LTI claimants. Prescription costs for LTI claimants are not included here.
  - <sup>g</sup> Covers non-medical card holders in the lowest 30 per cent of the income distribution, and HTD claimants. Prescription costs for HTD claimants are not included here.

### 15.5.3.3 Baseline Framework Costs

Table 15.8 presents the estimated total costs to the Government of subsidising both GP and prescription costs in the framework.

The additional cost to the Government of subsidising GP and prescription medicine expenses for Standard card holders is estimated to be between €111m and €157m (where the total payment to the GP ranges from €45 to €60 per visit, and at low prescription costs). Deducting the resources that are currently used to provide tax relief on GP and prescription expenses, the net additional government cost of the GP and prescription expenses for Standard card holders is estimated to be between €26m and €72m, equivalent to 0.2 – 0.5 per cent of net non-capital public health expenditure in 2009. However, it is noted that the abolition of tax relief on these medical expenses does not automatically increase the resources available to the health sector.

The estimated cost to the Government of the GP and prescription medicine expenses under the Standard Plus card ranges from €98m to €127m (at low prescription costs), equivalent to 0.7 – 1.0 per cent of net non-capital public health expenditure in 2009. The Government cost of GP and prescription medicine expenses for the Enhanced card is estimated to be between €76m and €91m (at low prescription costs). The Enhanced card replaces the GP Visit card and deducting the estimated costs of this card reduces the Government cost of the Enhanced card to between €50 and €65m (at low prescription costs), or 0.3 – 0.4 per cent of net non-capital public health expenditure in 2009.

The additional government costs for GP and prescription expenses for the Comprehensive card are estimated to be €229m (at low prescription costs), equivalent to 1.6 per cent of net non-capital public health expenditure in 2009.

Overall, where payment to GPs is set at €45 per visit (for Standard, Standard Plus and Enhanced card holders) and where prescription costs are based on the low estimate, the net additional cost to government of subsidising GP and prescription medicine expenses in the framework is estimated to be €403m, or 2.8 per cent of net non-capital public health expenditure in 2009. Where payment to GPs is set at €60 (and at low prescription costs), the net additional government cost of GP and prescription medicine expenses in the framework is estimated to be €493m, equivalent to 3.4 per cent of net non-capital public health expenditure in 2009.

The costs in Table 15.8 are based on the low estimate of prescription costs. Appendix 7.2 outlines the GP and prescription costs of the total framework based on the high estimate of prescription costs. Where the prescription costs are based on these higher estimates, the net government cost of GP and prescription medicines in the framework is estimated to be between €618 and €708m, or 4.2 – 4.9 per cent of net non-capital public health expenditure in 2009.

**TABLE 15.8**

Estimated Total Government Costs of GP and Prescription Medicines Subsidisation for Non-Medical Card Holders in the Framework, 2009

Primary Care Card	Payment to GP at Lower Limit <sup>a,b</sup>		Payment to GP Average <sup>a,b</sup>		Payment to GP at Upper Limit <sup>a,b</sup>	
	Total subsidy per year	% of net non-capital public health expenditure	Total subsidy per year	% of net non-capital public health expenditure	Total subsidy per year	% of net non-capital public health expenditure
	€'000	%	€'000	%	€'000	%
<b>Standard<sup>c</sup></b>	110,601	0.8	125,908	0.9	156,521	1.1
<i>deduct estimated tax relief on GP and drug expenses<sup>d</sup></i>	84,548	0.6	84,548	0.6	84,548	0.6
<b>Net cost of Standard card</b>	26,053	0.2	41,360	0.3	71,974	0.5
<b>Standard Plus<sup>e</sup></b>	97,702	0.7	107,585	0.7	127,350	0.9
<b>Enhanced<sup>f</sup></b>	76,112	0.5	81,037	0.6	90,885	0.6
<i>deduct estimated cost of GP Visit card</i>	25,781	0.2	25,781	0.2	25,781	0.2
<b>Net cost of Enhanced card</b>	50,331	0.3	55,256	0.4	65,104	0.4
<b>Comprehensive<sup>g</sup></b>	228,611	1.6	228,611	1.6	228,611	1.6
<b>Total net cost of GP care and prescription medicines</b>	<b>402,698</b>	<b>2.8</b>	<b>432,812</b>	<b>3.0</b>	<b>493,039</b>	<b>3.4</b>

- Notes:
- <sup>a</sup> The full payment to the GP per private visit is €45 at the lower limit, €50 at the average, and €60 at the upper limit.
  - <sup>b</sup> Prescription costs are based on the low estimate (i.e. estimated average patient out-of-pocket contributions in the DP Scheme).
  - <sup>c</sup> Covers non-medical card holders with incomes in the upper 50 per cent of the income distribution and who do not suffer from chronic illness/hypertension.
  - <sup>d</sup> Estimated tax relief on out-of-pocket GP and prescription medicine expenses in 2009 prices.
  - <sup>e</sup> Covers non-medical card holders with incomes between 40 and 50 per cent of the national average, and those with a diagnosis of hypertension.
  - <sup>f</sup> Covers non-medical card holders with incomes between 30 and 40 per cent of the national average, and those suffering from angina/heart attack/stroke, and LTI claimants. Prescription costs for LTI claimants are not included here.
  - <sup>g</sup> Covers non-medical card holders in the lowest 30 per cent of the income distribution, and HTD claimants. GP costs are based on average capitation, fee and allowance payments in the medical card scheme; prescription costs for HTD claimants are not included here.

#### 15.5.3.4 Cost of GP Care and Prescription Medicines Free at the Point of Use

The net additional government cost of providing free GP care and prescription medicines to the whole population is estimated to be between €1.1 and €1.2bn (at low prescription costs), equivalent to 7.6 – 8.3 per cent of net non-capital public health expenditure in 2009.<sup>19</sup> At high prescription costs, the net additional cost of universal coverage in the framework is estimated to range from €1.67 to €1.76bn, equivalent to 11.4 to 12.0 per cent of net non-capital public health expenditure in 2009.

<sup>19</sup> The net additional government GP and prescription costs are estimated for: granting a Comprehensive card to low earners and to those in the HTD Scheme in the non-medical card population, plus 100 per cent subsidisation of GP visits and 'below the threshold' prescription costs for the rest of the non-medical card population.

### 15.5.3.5 Additional Costs of the Framework

The estimates in Table 15.8 do not include the costs associated with granting the non-medical card holders access to a range of community health-care services free at the point of use. This is an important part of the framework in the context of supporting integrated health-care delivery (and ensuring patients are incentivised to receive care at the most appropriate level of care). Data on community health-care services are limited and precise cost estimates are not available. However, a number of specific services are currently provided in an outpatient hospital setting (with no charge to the patient) that may, in the context of an integrated health-care system, be shifted to the community care setting. In this case, the net cost to the Government is expected to be small (although there may be initial capital cost outlays).

### 15.5.3.6 Sensitivity Analysis

Sensitivity analysis around the cost estimates is also important. Varying the total payment to GPs for private visits from €45 to €50 increases the estimated government cost of the GP subsidy by 16 per cent, and by 48 per cent where the payment increases to €60 per visit (close to the current cost per GP visit under the GMS).

Increasing access to publicly subsidised GP care for the non-medical card population is expected to encourage greater utilisation amongst this group. Increased utilisation for those non-medical card holders who have specific chronic conditions is already factored into the above cost estimates. The extent to which utilisation by other non-medical card holders increases is influenced by a number of factors (e.g. the extent of previously suppressed demand). Sensitivity analysis (detailed in Appendix 7.1) examines the impact on costs of increasing utilisation by non-medical card holders (other than those with specified chronic conditions) by 20 per cent, and to the level of utilisation observed for the medical card population (stratified by age and sex), to take into account the possibility of current under-utilisation. Even if utilisation were to increase to match current medical card utilisation levels, the estimated additional cost to the Government of subsidising GP care in the framework would be equivalent to 1.6 per cent of net non-capital public health expenditure in 2009 (where the total payment per private GP visit is set at €45) (see Table A7.1, Appendix 7.1).

In the baseline scenario, Standard Plus Primary Care cards are granted to non-medical card holders suffering from hypertension. However, it may be more appropriate to focus on those who are more specifically identified as being at a high risk of developing a cardiovascular disease (i.e. a subset of those with hypertension). Adjusting the Standard Plus card eligibility to include only those with a high risk of cardiovascular disease (i.e. in addition to those eligible on the basis of income), the net additional government costs in the framework are estimated to fall by 6.5 per

cent, to €377m (or 2.6 per cent of net non-capital public health expenditure in 2009), where the total payment to the GP is set at the lower limit of €45 per visit, and prescription costs are based on the low estimate (see Table A7.2, Appendix 7.1).

To demonstrate the flexibility of the framework in establishing levels of subsidisation that are aligned with resource constraints, the conditions required for a revenue neutral Standard card are examined. Where the total payment to the GP is set at €45 per visit, allowing Standard card holders to avail of GP care at €40 per visit, and prescription medicine expenses ('below the threshold' payments) at 86 per cent of the price (up to a monthly threshold of €120) would not pose any additional cost to the Government (see Table A7.3, Appendix 7.1).

## 15.6 ASSESSMENT OF THE FRAMEWORK

### 15.6.1 Assessment against Objectives of the Framework

The framework can be assessed against its own objectives, namely to encourage registration, promote the use of primary care in the first instance where feasible, ensure care is provided in the most appropriate location (i.e. it should not be cheaper for patients to use acute care where use of primary care is appropriate), and ensure that patients are not deterred from utilisation.

An incentive to register with a primary care provider is built into the framework whereby registration is a pre-requisite for receiving public subsidisation. There are important decisions around what level of fixed user fee for GP care would successfully incentivise people to register with a GP. Setting the user fee at €40 (as is the case for Standard card holders) may or may not achieve a large shift in the number of people registering, while a fixed fee of €20 – €30 (for Enhanced and Standard Plus card holders) would be more effective (i.e. subsidisation of 33-56 per cent on a total payment per visit of €45). The transactions costs around applying for the Primary Care Cards, and the process of GP registration, are expected to influence the uptake of the subsidy. When the GP Visit card was introduced in 2005, the stated goal was to provide at least 200,000 cards (DoHC, 2004) while by 2009 less than 100,000 cards had been issued.<sup>20</sup> Thus, experience with the GP Visit card, which fixes the user fee for GP care at zero, underlines the importance of minimising bureaucratic requirements around the application and registration processes, discussed below. International experience can provide some guidance for a level of user fee that incentivises registration. For example, the average out-of-pocket co-payment for a primary care physician visit in Sweden ranges from €11 to €17 (2004 prices) (although in most counties individuals under 20 years of age are exempt from user charges, see Country Profiles: Sweden). If the unit cost of a GP visit is similar to Ireland (estimated average private GP charge of €40–€50 in 2004, Smith, 2010), the

<sup>20</sup> PCRS communication adapted from PCRS (2008).



level of subsidisation in Sweden is estimated to be at least 60 per cent of the total per visit payment to the GP. In Australia, the level of subsidisation of GP care was increased in 2005 from 86 per cent to 100 per cent of the schedule GP fee (see Country Profiles: Australia).

The framework reduces the extent to which individuals are paying at the point of use for primary care. This lowers the financial barrier to accessing primary care which, has been observed to deter utilisation amongst non-medical card holders in the present system, and to incentivise use of acute care over primary care even in cases when primary care is more appropriate (as discussed in Chapter 10).

The graduated structure of the framework also removes the large jumps in entitlement that are currently in place. In the current system, where an individual's income increases above the GP Visit medical card eligibility threshold, the user fee for GP care increases from zero to the full private charge. In contrast, in the framework a shift in income from one threshold level to another does not entail as large a jump in entitlement (e.g. from a GP user fee of €20 to €30, or subsidisation of prescription medicines from 60 per cent subsidy to 40 per cent, etc.).

The framework ensures greater alignment of provider incentives across patient type. For GP care, participating GPs are paid on a capitation basis for all registered patients. While user fees per visit are still collected from those who don't have a Comprehensive card, they are lower than existing levels and greater reductions are concentrated on lower income groups and those with established chronic illness.

The framework also corrects key anomalies in the current set of entitlement structures. The fragmented approach to subsidising chronic disease is addressed by expanding the range of diseases covered to include the leading causes of mortality. The inconsistencies in terms of subsidising one part of necessary primary care (e.g. GP care) for one group, and another part of necessary primary care (e.g. prescription medicines) for another group are also addressed. For all categories in the framework, public subsidisation covers a combination of GP and prescription medicine services.

### 15.6.2 Assessment against Financing and Equity Criteria

A key consideration for policy makers is how to ensure that alternative financing arrangements could be accommodated without having destabilising impacts on the resource or physical capacity in the system. Section 15.4.1 outlined four dimensions along which the framework needs to be assessed: affordability, feasibility, administrative costs, and equity in health-care financing.

#### 15.6.2.1 Affordability

Assessing the affordability of the framework is especially important in light of the resource constrained environment. The net additional government costs of the GP and prescription costs for the version of the framework outlined here are equivalent to not more than 5 per cent of total net non-capital public health expenditure in 2009. In the context of full subsidisation of GP and prescription medicine expenses for the whole population, the net additional cost to the Government is estimated to be equivalent to not more than 12 per cent of net non-capital public health expenditure in 2009 (under the highest cost conditions).

As shown in the analysis, the Government costs of the GP subsidy are partly dependent on the capitation fees negotiated with GPs. Where the total payment to the GP (i.e. user fee plus subsidy) increases from €45 to €60 per visit, the additional cost to the Government increases by almost 50 per cent. To put these costs into context, the average unit cost of a GP visit in the UK is estimated at €40 (Curtis, 2009), which is lower than the lower limit used in this analysis.<sup>21</sup>

The affordability of the framework can also be assessed against potential resource savings. As outlined above, the framework is accompanied by the removal of tax relief on GP and prescription medicine bills. The framework proposes an alternative use for these resources. Resources released through the abolition of this tax relief can potentially fully offset the Government costs of subsidising GP and prescription medicine expenses for Standard card holders (see Appendix 7.1). This has the effect of replacing an indirect tax expenditure with a targeted direct expenditure that is directly linked with policy priorities (e.g. registration with a primary care provider), which, because it is a more visible expenditure, is possible to monitor and review against given objectives. By a similar logic, abolition of the tax relief on private health insurance premiums, which is associated with an inequitable subsidy on richer income groups (as discussed in Chapter 10), could be considered.

There are also some cost savings within the framework that are not quantified in Section 15.5. For a given ingredient cost, the payments made to pharmacists under

<sup>21</sup> STG€35 per GP surgery consultation lasting 11.7 minutes (converted at April 2010 exchange rates).

the DP Scheme are higher than under the GMS (as the payment under the DP Scheme includes a 20 per cent mark-up in addition to a dispensing fee, while payment under the GMS includes a dispensing fee only). By paying pharmacists according to the rates determined under the GMS rather than under the DP or other drug schemes, the government drug bill would be reduced. Further reforms in the pricing and management of drugs, discussed in Chapter 12, are expected to generate future savings. Other potential savings through achieving efficiency gains in the sector are discussed in Chapter 14.

It is also important to take into account the long-term savings that are to be expected from improving the way in which health care is delivered, in terms of achieving earlier diagnosis, treatment, and management of conditions, monitoring and treating conditions in the primary/community rather than in the hospital setting, and improvements in economic productivity due to better health outcomes. As noted in Chapters 10 and 11 there are higher costs and poorer outcomes associated with not having a regular source of primary care (Starfield *et al.*, 2005).

The framework as illustrated here has been calibrated to provide specific levels of subsidy to the different Primary Care Cards but, as demonstrated, these levels can be adjusted to align with resource availability. It would also be possible to introduce some changes ahead of others within the framework. Policy makers could consider as a first step extending the provision of a Comprehensive card to all individuals in the HTD Scheme, or expanding the LTI Scheme to cover the leading causes of mortality.<sup>22</sup> Thus, the framework is flexible and does allow for incremental changes to entitlement. However, the fundamental message behind the framework approach, as outlined here, is to emphasise that decisions around entitlement need to be taken within the context of the whole set of entitlements, and assessed in terms of how that whole set aligns with policy priorities for effective, resource allocation and integrated health-care delivery.

Policy makers also need to be aware when making these incremental changes that there are trade-offs between subsidising the cost of care for those with established disease, and ensuring that people with as yet undiagnosed conditions are not deterred or delayed from seeking medical attention for reasons of un-affordability and are diagnosed as early as possible. Higher contact between individuals and their own GP can increase the likelihood of diagnosis of underlying chronic conditions (Newhouse *et al.*, 1993). This trade-off is identified in the literature on health prevention. Rose (1992) highlighted the weaknesses of an approach that only targets preventive measures on a small number of high-risk vulnerable individuals rather

<sup>22</sup> Other extensions, such as reducing the primary care user fees for children, can also be considered. For example, using the same data and methodology employed in the framework analysis, allowing free access to GP care and to prescription medicines (e.g., as under the Comprehensive card) for all children aged less than 16 is estimated to cost the Government an additional €321m, or 2.2 per cent of net non-capital public health expenditure in 2009.

than on the broader population. Rose argued that a greater proportion of disease burden is prevented by reducing the risk of the population as a whole rather than targeting people at high risk. Where a population is registered with a primary care provider this allows more efficient targeting approaches (e.g. GPs making targeted recommendations for prostate screening for specific male age groups on their registered lists).

Over time, the costs of GP care may fall as the roles and responsibilities of other professionals in the community are developed (discussed below).

### 15.6.2.2 Feasibility

#### *Capacity Issues*

In addition to financial barriers, the role of bureaucratic and capacity barriers to implementation needs to be assessed. Capacity constraints in the sector need to be addressed when proposing changes to entitlement. As observed in New Zealand, expansion of GP subsidisation could be rolled out on a phased basis to be in line with existing financial as well as physical capacity constraints (see Country Profiles: New Zealand). This is important in the Irish context given the existing, and well documented (Thomas *et al.*, 2008; Thomas *et al.*, 2009) capacity constraints in the GP sector.<sup>23</sup>

It is recognised here that integrated health-care delivery and enhancing chronic disease management in particular, encompasses community as well as GP services. Over time, and in line with capacity and training time lags, many of the services that are currently delivered in the hospital setting and by GPs, could be taken on by other professionals located in the community, for example clinical nurse specialists. The framework focuses on improving access for the non-medical card population to subsidised GP care, but it is recognised that, in the longer term, the role of other specialists in the community will also be developed and can take on some of the GPs' responsibility. As discussed in Chapter 8, a reconfiguration of the skills mix in primary care could reduce the need for additional GP training places.

#### *Bureaucratic Issues*

To ensure that the full monetary value of the different rates of public subsidy for GP visits are passed on to the users requires that the total payment per private GP visit (i.e. user fee plus subsidy) is capped for participating GPs. This is also important to ensure that GPs do not engage in cost shifting by increasing private fees charged to private patients who are not eligible for the subsidy (e.g. not registered). In New

<sup>23</sup> Estimates of future GP supply take into account projected retirement rates, the feminisation of the GP workforce, and population growth (Thomas *et al.*, 2009). The recent announcement to increase the number of GP training places by 30 per cent (HSE, 2010) will ensure that the current number of GPs per 100,000 population will, at least, not decline by a large amount over the next 10 years, but is not enough to bring the number of GPs per 100,000 population up to EU average levels (see also Chapter 8).

Zealand, under the 2001 Primary Health-Care Strategy, public subsidisation of GP care was progressively expanded to different population groups, covering 95 per cent of the population by 2007. However, GPs in New Zealand retain the right to set their own level of co-payment and there is concern that universal access to low cost GP care may not be sustained in the long term (CHSRP University of Auckland, 2006). This experience can inform the decisions around how to shape a policy on GP subsidisation in Ireland.

There is already a precedent in the Irish system whereby in return for capitation payment, the Government determines what (if any) additional co-payment the GP can charge the eligible patient. Under the GMS contract, GPs provide services to registered medical card holders and receive an agreed government capitation payment (plus fees and allowances) in respect of each registered medical card patient, and the permitted co-payment charge to the patient is set at zero. A similar set of conditions could hold in the framework. The agreed government subsidies for the different categories of Primary Care Cards would be paid to participating GPs as an annual capitation payment in respect of each registered private patient and the GP would charge the patient a pre-determined additional co-payment.

The system would operate on a voluntary basis, thereby avoiding any conditions that would not meet competition law requirements. GPs would volunteer to be part of the scheme, similar to the way in which GPs in Australia are free to choose between charging their own fees to patients, or to take up the option of sending a bulk bill to Medicare (the publicly funded universal health-care programme) for reimbursement. The Medicare Benefits Schedule sets out a schedule of fees for a range of health-care services that are reimbursed to some degree by the federal government. Medicare pays 100 per cent of the schedule fee for GP services, 85 per cent of the schedule fee for other out-of-hospital services (e.g. specialist consultations) and 75 per cent of the schedule fee for in-hospital medical services (see Country Profiles: Australia for further details). GPs can either 'bulk-bill' and accept 100 per cent of the schedule fee, or bill patients directly. To encourage bulk-billing, the Government increased the reimbursement of the schedule fee for GP services from 86 to 100 per cent from 1 January 2005 with the result that the bulk-billing rate for GP services was 79.8 per cent by June 2009 (Minister for Health and Ageing, 2009).

To facilitate the process of registration by private patients, GPs would also be required to operate an open enrolment policy for new patients (although this could be subject to a maximum limit per GP).

The level at which the total payment per private GP visit is capped is not set in the framework and three different prices have been included in the cost estimations. Negotiations around the agreed capped payment would be required when implementing the framework. With the introduction in 2001 of automatic

entitlement to a medical card for all individuals aged 70 and over, specific capitation rates under the GMS were negotiated for the new card to compensate GPs for loss of income from private fees. Conversely, when the GP Visit card was introduced in 2005, no new capitation rates were negotiated.

#### 15.6.2.3 Low Administrative Costs

To support the framework, a streamlined eligibility assessment procedure is proposed. The current system of means testing would be abolished, and the need for discretionary medical cards would be largely removed in the context of the framework. This would be replaced by a simpler income assessment process whereby eligibility for public subsidisation would be linked to previous year's income as assessed in the process of determining tax liability (taking account of family size and dependents), or to certified illness in one of the specified categories.

#### 15.6.2.4 Equity

In terms of equity, the framework illustrated here introduces greater separation between payment for health care and people's risk of ill health. Financing health care from public resources allows the decisions governing how much people pay for health care (i.e. public tax contributions) to be separated from the decisions governing who receives health care. In contrast, the payment of a user fee is directly linked with receipt of health care, and international evidence shows that these can discourage utilisation, particularly for lower income groups. By reducing the price of health care that is faced by individuals at the point of use, individuals on relatively low incomes who are in need of health care are more likely to be able to afford to seek medical attention when and where appropriate.

### 15.6.3 Assessment of the Cost Estimates

The costs presented in Section 15.5 are preliminary estimates of the GP and prescription cost associated with the framework. Additional costs of community and continuing care services have not been examined and further data collection is required to estimate these.

There are limited data on out-of-pocket prescription payments (i.e. payments below the monthly DP threshold of €120). As this is a large contributor to the costs of the framework, it is important to collect more detailed micro-data in this area to provide more accurate estimates of the likely prescriptions costs in the framework.

Further sensitivity analysis is required to ensure the robustness of the estimates. For example, the population has been categorised by income based on available survey data. The implications on total costs of changes in the size of these categories, or of changes in the income thresholds for the cards, need to be examined in more detail. This is important not just to assess the accuracy of the income categorisations based on survey data, but also because the size of these categories will not be fixed over time.

## 15.7 SUMMARY AND CONCLUSIONS

This chapter has reviewed the key findings on health-care resource allocation, financing and sustainability from the analysis of the theoretical and empirical literature in Parts 2–6 of this report, with a view to identifying policy implications for the Irish context. Health-care resource allocation, financing, and sustainability describe different components of the overall resource flow in a health-care system. Decisions around how much funding there is for health care (sustainability), on how resources are to be generated for health care (financing), and on how those available resources are to be allocated across the different demands within a health-care system (resource allocation) are interlinked and changes in one component of the system can have implications for other parts.

This report has examined and highlighted a number of issues for attention in relation to resource allocation, financing and sustainability in the Irish context. These include moving towards resource allocation on the basis of population health, the continued development of a purchaser-provider split, alternative methods of provider reimbursement, a focus on measures that seek to enhance value for money, and a framework of entitlements and user fees that are supportive of resource allocation and integrated health-care delivery.

Reviews of Irish and international policy have highlighted the growing importance of integrated health care. With changing patterns of disease and care, in particular due to chronic disease, enhanced linkages between different levels of care and providers are necessary. While a number of conditions are required for integrated health-care delivery (e.g. appropriate IT and governance systems), effective resource allocation and financing systems that incentivise both users and providers to seek, and provide, care in the most appropriate settings are crucial.

From an assessment of the complete resource flow in the Irish context, there are particular problems in the financing system that are not supportive of effective resource allocation or integrated health-care delivery. Changes to the entitlement and user fee structures in the Irish system are required to ensure that user incentives are brought more in line with those of all other actors in the system. The user fees can be adjusted so that user and provider incentives are structured to encourage continuity of care and appropriate care in the appropriate location, both of which are required to support integrated health-care delivery. In this concluding chapter, a framework for health-care entitlement and user fees that would support effective resource allocation and integrated health-care delivery in the Irish context has been outlined. Preliminary estimates of the government costs of that framework have also been presented, and various options for immediate implementation discussed.



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# PART 7

## Appendix

### 7.1 SENSITIVITY ANALYSIS FOR COSTS IN THE FRAMEWORK

#### A7.1.1 GP Utilisation

The costs of subsidising general practitioner (GP) care in the framework have allowed for an increase in GP utilisation by non-medical card holders who have been diagnosed with one of the specified chronic conditions. Increasing access to publicly subsidised GP care for the non-medical card population, even for those without a diagnosed chronic condition, is expected to have a positive impact on utilisation rates. The potential cost implications of this increase in utilisation are examined here.

The extent to which utilisation would increase in response to a reduction in the user fee for private GP care is influenced by a number of factors (e.g. the extent of previously suppressed demand). Two estimates for the change in utilisation are analysed here:

- 20 per cent increase in GP utilisation

Analysis of GP utilisation data in the Living in Ireland Surveys indicates that utilisation by the non-medical card population would be 19-25 per cent higher, measured as a proportion of average GP utilisation, if utilisation were determined on the basis of health care need alone, controlling for medical card status and a range of non-need factors.<sup>1</sup> This is consistent with evidence from New Zealand regarding the impacts on GP utilisation of expanding access to public subsidisation for GP care and prescription medicines (as part of the 2001 Primary Health-Care Strategy). Evidence indicates that GP consultation rates have increased for all population groups and particularly for GP practices with high proportions of low income patients. In these latter practices, consultation rates have seen a 20 per cent increase (Ashton, 2007).

- Average utilisation by medical card holders

An upper limit on the extent to which GP utilisation in the non-medical card population is expected to increase, in response to a reduction in the GP user fee, is provided by the level of utilisation currently observed by medical card holders. The average number of GP visits by medical card holders per annum is 157 per

<sup>1</sup> This is based on a two part regression model (logit and truncated negative binomial) of GP utilisation, using data from the 2000 wave of the Living in Ireland Survey (ESRI, 2000) where observed GP utilisation is standardised for health -care need factors.

cent greater than the average number of GP visits made by non-medical card holders per annum, although this varies by age and sex and does not control for variations in health need.

Table A7.1 presents the costs of subsidising private GP care for non-medical card holders within the framework (including Standard, Standard Plus, Enhanced and Comprehensive card holders) at different GP utilisation rates. The costs in Table A7.1 are based on the scenario where the total payment to the GP is set at the lower limit of €45 per visit, while the GP utilisation rates vary from baseline rates, to 20 per cent above baseline rates, to medical card rates.

At the baseline, average utilisation by non-medical card holders (with no chronic illness) is not observed to change in response to the subsidy on GP visits. In option 2, average utilisation increases by 20 per cent. The estimated additional government cost of the GP subsidy in the framework increases by 3.2 per cent (from €187m to €194m). In option 3, average utilisation rates of the medical card population are adopted for all non-medical card holders. The estimated additional government cost of GP subsidisation in the framework increases by 22.8 per cent above the baseline estimate to €230m, equivalent to 1.6 per cent of net non-capital public health expenditure in 2009.

#### A.7.1.2 Hypertension Versus Cardiovascular Risk

In the baseline scenario, Standard Plus Primary Care cards are granted to non-medical card holders suffering from hypertension. As noted, it can be argued that it is more appropriate to focus on those who are more specifically identified as being at a high risk of developing a cardiovascular disease (i.e. a subset of those with hypertension).

The additional government costs of subsidising GP and prescription medicine expenses in the framework are re-estimated here in the context of the revised eligibility requirement for the Standard Plus card (i.e. non-medical card individuals with incomes between 40 and 50 per cent of the national average, plus non-medical card holders identified as being at high risk of developing cardiovascular disease). To identify the non-medical card population at high risk for cardiovascular disease, risk scores are identified from the international literature in this area. Risk scores have been developed to estimate a person's 10 year risk of cardiovascular disease based on known risk factors (including age, sex, systolic blood pressure, smoking status, etc.). In the UK, the QRISK2 risk score has been recently externally validated. In an application to UK data, the QRISK2 risk score estimates that 14 per cent of the male cohort aged 35-74 and 6 per cent of the female cohort aged 35-74 would be identified as being at high risk for cardiovascular disease (Collins, 2010). Applying

these rates to the non-medical card population in Ireland, there are an estimated 131,158 individuals identified as having a high 10 year risk of developing cardiovascular disease.

Table A7.2 presents the net additional government costs of subsidising GP and prescription medicines in the framework at the baseline, and in the alternative option with the revised number of people eligible for a Standard Plus card. The costs in Table A7.2 are based on the scenario where the total payment to the GP is set at the lower limit of €45 per visit, and prescription costs are based on the low estimate. Relative to the baseline, in the option where a lower number of people are eligible for a Standard Plus card on the basis of health status, the net additional government costs in the framework fall by 6.5 per cent, to €377m (or 2.6 per cent of net non-capital public health expenditure in 2009).

#### A.7.1.3 Revenue Neutral Standard Primary Care Card

For illustrative purposes, the baseline framework has been presented with examples of the user fees and levels of subsidy that could apply in each of the categories, and the associated government cost estimates (for subsidies on GP and prescription medicine expenses) have been outlined. However, the framework is flexible and the objective here has been to outline a coherent set of entitlements in the system that supports integrated health-care delivery, rather than to specify the specific levels of subsidy. The latter would be ultimately determined by the availability of government resources among other constraints.

To demonstrate the flexibility of the framework in setting subsidy rates that are aligned with macroeconomic constraints in this section, subsidisation for Standard card holders is set to a level that would yield no additional cost to Government. In the context of abolishing the 20 per cent tax relief on GP and prescription medicine expenses, granting a direct subsidy equivalent to €5 per private GP visit (11 per cent subsidy) to Standard card holders, and allowing them to purchase prescription medicines (below the Drugs Payment (DP) Scheme threshold of €120 per month) at 86 per cent of the price would not pose any additional cost to the Government.

As outlined in Table A7.3, the cost to the Government of subsidising GP and prescription medicine expenses for Standard card holders at these rates is more than covered by the amount of resources that would be released with the abolition of the tax relief. This is in the context where the total payment to the GP is set at the lower limit of €45 per visit (and at the low estimate of prescription costs).

**TABLE A7.1**  
Estimated Framework Costs of GP Subsidisation for Non-Medical Card Holders at Different Utilisation Rates, 2009

Primary Care Card	1. Baseline Utilisation Rates <sup>a</sup>			2. 20 Per Cent Increase in Utilisation Rates <sup>a</sup>			3. Medical Card Utilisation Rates <sup>a</sup>		
	Total out-of-pocket payment per year €'000	Total subsidy per year €'000	Total GP cost per year €'000	Total out-of-pocket payment per year €'000	Total subsidy per year €'000	Total GP cost per year €'000	Total out-of-pocket payment per year €'000	Total subsidy per year €'000	Total GP cost per year €'000
Standard <sup>b</sup>	122,454	15,307	137,761	146,945	18,368	165,313	294,748	36,843	331,591
Standard Plus <sup>c</sup>	59,295	29,647	88,942	62,087	31,043	93,130	78,936	39,468	118,404
Enhanced <sup>d</sup>	19,698	24,622	44,320	20,982	26,228	47,210	28,736	35,920	64,656
Comprehensive <sup>e</sup>	-	117,904	117,904	-	117,904	117,904	-	117,904	117,904
<b>Total cost of GP care</b>	<b>201,446</b>	<b>187,480</b>	<b>388,927</b>	<b>230,014</b>	<b>193,543</b>	<b>423,557</b>	<b>402,420</b>	<b>230,136</b>	<b>632,556</b>

Notes: <sup>a</sup> The full payment to the GP per private visit is set at €45 (the lower limit).

<sup>b</sup> Covers non-medical card holders with incomes in the upper 50 per cent of the income distribution and who do not suffer from chronic illness/hypertension.

<sup>c</sup> Covers non-medical card holders with incomes between 40 and 50 per cent of the national average, and those with a diagnosis of hypertension.

<sup>d</sup> Covers non-medical card holders with incomes between 30 and 40 per cent of the national average, and those suffering from angina/heart attack/stroke, and LTI claimants.

<sup>e</sup> Covers non-medical card holders in the lowest 30 per cent of the income distribution, and HTD claimants. GP costs are based on average capitation, fee and allowance payments in the medical card scheme.

**TABLE A7.2**

Estimated Framework Costs of GP and Prescription Medicines Subsidisation for Non-Medical Card Holders with Adjusted Standard Plus Card Eligibility, 2009

Primary Care Card	1. Baseline <sup>a,b</sup>		2. Adjusted Standard Plus Card Eligibility <sup>a,b</sup>	
	Total subsidy per year	% of net non-capital public health expenditure	Total subsidy per year	% of net non-capital public health expenditure
	€'000	%	€'000	%
<b>Standard<sup>c</sup></b>	110,601	0.8	123,820	0.8
<i>deduct estimated tax relief on GP and drug expenses<sup>d</sup></i>	84,548	0.6	84,548	0.6
<b>Net cost of Standard card</b>	26,053	0.2	39,272	0.3
<b>Standard Plus<sup>e</sup></b>	97,702	0.7	60,103	0.4
<b>Enhanced<sup>f</sup></b>	76,112	0.5	74,414	0.5
<i>deduct estimated cost of GP Visit card</i>	25,781	0.2	25,781	0.2
<b>Net cost of Enhanced card</b>	50,331	0.3	48,633	0.3
<b>Comprehensive<sup>g</sup></b>	228,611	1.6	228,611	1.6
<b>Total net cost of GP care and prescription medicines</b>	<b>402,698</b>	<b>2.8</b>	<b>376,620</b>	<b>2.6</b>

- Notes:
- <sup>a</sup> The full payment to the GP per private visit is set at €45 (the lower limit).
  - <sup>b</sup> Prescription costs are based on the low estimate (i.e. estimated average patient out-of-pocket contributions in the DP Scheme).
  - <sup>c</sup> Covers non-medical card holders with incomes in the upper 50 per cent of the income distribution and who do not suffer from chronic illness/hypertension.
  - <sup>d</sup> Estimated tax relief on out-of-pocket GP and prescription medicine expenses in 2009 prices.
  - <sup>e</sup> Covers non-medical card holders with incomes between 40 and 50 per cent of the national average, and those identified as being at high risk of cardiovascular disease.
  - <sup>f</sup> Covers non-medical card holders with incomes between 30 and 40 per cent of the national average, and those suffering from angina/heart attack/stroke, and LTI claimants. Prescription costs for LTI claimants are not included here.
  - <sup>g</sup> Covers non-medical card holders in the lowest 30 per cent of the income distribution, and HTD claimants. GP costs are based on average capitation, fee and allowance payments in the medical card scheme; prescription costs for HTD claimants are not included here.

**TABLE A7.3**

Estimated Framework Costs of GP and Prescription Medicines Subsidisation for Non-Medical Card Holders with Revenue Neutral Standard Primary Care Card, 2009

Primary Care Card	Payment to GP at Lower Limit <sup>a,b</sup>	
	Total subsidy per year	% of net non-capital public health expenditure
	€'000	%
<b>Standard<sup>c</sup></b>	82,013	0.6
<i>deduct estimated tax relief on GP and drug expenses<sup>d</sup></i>	84,548	0.6
<b>Net cost of Standard card</b>	-2,535	-
<b>Standard Plus<sup>e</sup></b>	97,702	0.7
<b>Enhanced<sup>f</sup></b>	76,112	0.5
<i>deduct estimated cost of GP Visit card</i>	25,781	0.2
<b>Net cost of Enhanced card</b>	50,331	0.3
<b>Comprehensive<sup>g</sup></b>	228,611	1.6
<b>Total net cost of GP care and prescription medicines</b>	<b>374,110</b>	<b>2.6</b>

- Notes:
- <sup>a</sup> The full payment to the GP per private visit is set at €45 (the lower limit).
  - <sup>b</sup> Prescription costs are based on the low estimate (i.e. estimated average patient out-of-pocket contributions in the DP Scheme).
  - <sup>c</sup> Covers non-medical card holders with incomes in the upper 50 per cent of the income distribution and who do not suffer from chronic illness/hypertension. Users are charged €40 per private GP visit; prescription medicines are available at 86 per cent of the price, up to a monthly out-of-pocket threshold of €120.
  - <sup>d</sup> Estimated tax relief on out-of-pocket GP and prescription medicine expenses in 2009 prices.
  - <sup>e</sup> Covers non-medical card holders with incomes between 40 and 50 per cent of the national average, and those with a diagnosis of hypertension.
  - <sup>f</sup> Covers non-medical card holders with incomes between 30 and 40 per cent of the national average, and those suffering from angina/heart attack/stroke, and LTI claimants. Prescription costs for LTI claimants are not included here.
  - <sup>g</sup> Covers non-medical card holders in the lowest 30 per cent of the income distribution, and HTD claimants. GP costs are based on average capitation, fee and allowance payments in the medical card scheme; prescription costs for HTD claimants are not included here.

## 7.2 ESTIMATED FRAMEWORK COSTS – ADDITIONAL TABLE

**TABLE A7.4**  
Estimated Total Government Costs of GP and Prescription Medicines Subsidisation for Non-Medical Card Holders in the Framework (At High Prescription Costs), 2009

Primary Care Card	Payment to GP at Lower Limit <sup>a,b</sup>		Payment to GP Average <sup>a,b</sup>		Payment to GP at Upper Limit <sup>a,b</sup>	
	Total subsidy per year €'000	% of net non-capital public health expenditure	Total subsidy per year €'000	% of net non-capital public health expenditure	Total subsidy per year €'000	% of net non-capital public health expenditure
<b>Standard<sup>c</sup></b>	173,635	1.2	188,941	1.3	219,555	1.5
<i>deduct estimated tax relief on GP and drug expenses<sup>d</sup></i>	84,548	0.6	84,548	0.6	84,548	0.6
<b>Net cost of Standard card</b>	89,087	0.6	104,394	0.7	135,007	0.9
<b>Standard Plus<sup>e</sup></b>	142,718	1.0	152,601	1.0	172,366	1.2
<b>Enhanced<sup>f</sup></b>	110,171	0.8	115,096	0.8	124,945	0.9
<i>deduct estimated cost of GP Visit card</i>	25,781	0.2	25,781	0.2	25,781	0.2
<b>Net cost of Enhanced card</b>	84,390	0.6	89,315	0.6	99,163	0.7
<b>Comprehensive<sup>g</sup></b>	301,840	2.1	301,840	2.1	301,840	2.1
<b>Total net cost of GP care and prescription medicines</b>	<b>618,036</b>	<b>4.2</b>	<b>648,150</b>	<b>4.4</b>	<b>708,377</b>	<b>4.9</b>

**Notes:**

- <sup>a</sup> The full payment to the GP per private visit is €45 at the lower limit, €50 at the average, and €60 at the upper limit.  
<sup>b</sup> Prescription costs are based on the high estimate (i.e. average cost of prescription medicines per medical card holder in the GMS (weighted by age/sex profile of non-medical card population)).  
<sup>c</sup> Covers non-medical card holders with incomes in the upper 50 per cent of the income distribution and who do not suffer from chronic illness/hypertension.  
<sup>d</sup> Estimated tax relief on out-of-pocket GP and prescription medicine expenses in 2009 prices.  
<sup>e</sup> Covers non-medical card holders with incomes between 40 and 50 per cent of the national average, and those with a diagnosis of hypertension.  
<sup>f</sup> Covers non-medical card holders with incomes between 30 and 40 per cent of the national average, and those suffering from angina/heart attack/stroke, and LTI claimants. Prescription costs for LTI claimants are not included here.  
<sup>g</sup> Covers non-medical card holders in the lowest 30 per cent of the income distribution, and HTD claimants. GP costs are based on average capitation, fee and allowance payments in the medical card scheme; prescription costs for HTD claimants are not included here.



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**APPENDIX:** Country Profiles

**COUNTRY PROFILES**

**INTRODUCTION ..... 517**  
**REFERENCES ..... 583**

# Appendix

## Country Profiles

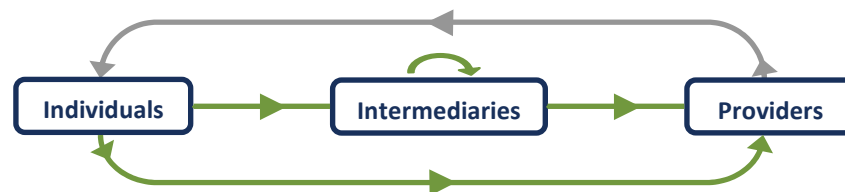
### INTRODUCTION

A common format is used to describe the health care system of each of the eight comparator countries selected for this report (Australia, Canada, England, Germany, Netherlands, New Zealand, Sweden and the United States). The template is presented below with an overview of the material to be presented in each section.

#### Outline of the System

Key indicators set the context for each country profile (size of the population, age profile, life expectancy, health expenditure). To give a broad overview of the system, the introduction sets out the stated priorities for the sector, and a summary picture of the governance, finance and resource allocation structures in the system.

The structures of each health system are then described in the context of the overall flow of resources and services as outlined in the figure below.



At each stage in the resource/service flow, the implications of the structures are assessed (where possible) in terms of the incentives established by the structures and in terms of key health policy priorities. The health principles are drawn from international and national literature and include equity in financing and health care delivery, sustainability (including efficiency), transparency and accountability, and universal coverage.

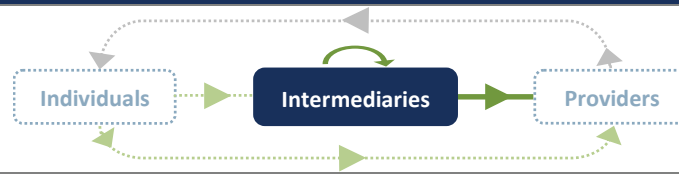
### Individuals



#### Resource Contribution Mechanisms

All health care resources are ultimately contributed by individuals. Resource contribution mechanisms include: public taxes, compulsory insurance, out-of-pocket payments and private health insurance. Decisions in each country are made on the combination of public/private resources, the contribution rates (e.g. employee contribution rate/employer contribution rate) and participation rates (e.g. payment opt outs for high earners).

## Intermediaries

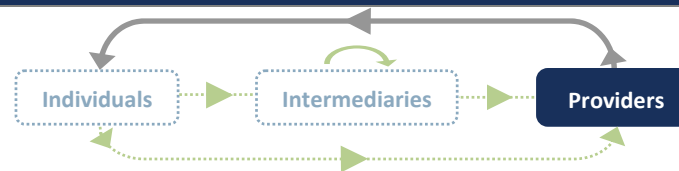


### Pooling Resources, Purchaser-Provider Split, Payment to Providers

The resources collected from individuals are used to finance health care that is delivered by providers (i.e. GPs, hospitals, etc.). Providers are either paid directly by individuals (i.e. out-of-pocket payments), or indirectly via intermediaries (e.g. public resources pooled by the Government from tax contributions, private health insurance resources pooled by insurance companies from private premiums).

Providers may be directly owned by the payer or contracted out by the payer (purchaser-provider split). Providers may be paid via budgets, fee-for-service, capitation, payment per performance or a mix of methods.

## Providers



### Health Basket Dimensions, Health Care Delivery Issues

Health Basket dimensions: Health care services are delivered by providers to individuals in a number of ways. Public cover for health services can extend to:

- all individuals or a sub-group (breadth: who is covered by public funding)
- all health care or some defined set of services (depth: what is covered by public funding)
- all costs or a portion of the costs (height: is there cost-sharing)

This section also assesses a range of health care delivery issues that are important for resource allocation (e.g. is there integration in the system, is there patient choice, what is the nature of public/private interaction).

## Australia

### Health System Summary

#### Key Indicators

Population:	21.3m
Ratio of population aged 65+ to the total population:	14 per cent
Ratio of population aged 85+ to the total population:	1.7 per cent
GDP per capita:	US\$PPP 38,100 (2008 est.)
Total expenditure on health:	8.7 per cent of GDP (2006 est.)
Life expectancy at birth:	81.63 years
Infant mortality:	4.75 deaths per 1,000 live births

#### Stated Policy Priorities

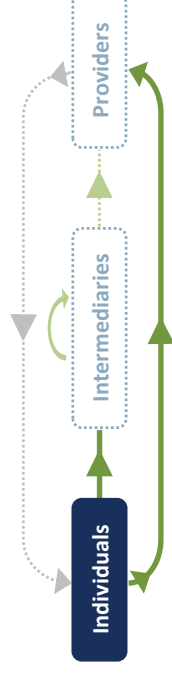
A central principle of the Australian health system is universal access to good-quality health care, regardless of ability to pay. Key criteria for the Australian health care system are set out in a national health performance framework and these include equitable, effective, appropriate, efficient, responsive, accessible, safe, continuous, capable and sustainable.

#### Governance Structure

The health system has a decentralised structure. The Commonwealth (federal government) plays a leadership role in health policy-making and financing. The Department for Health and Ageing is responsible for funding and administering non-hospital medical services (Medicare Benefits Schedule) and pharmaceutical benefits, transferring resources to the States and Territories (e.g. via Australian Health Care Agreements for public hospital funding, Public Health Outcome Funding Agreements), financing health research, and emergency preparedness. National bodies include Medicare Australia (the national authority responsible for administering the Medicare and Pharmaceuticals Benefits Schemes and other schemes), Therapeutic Goods Administration, National Health and Medical Research Council, Australian Institute of Health and Welfare (statutory statistics and research agency), Department of Families, Community Services and Indigenous Affairs (provision of income support and other community services for people with significant disability) and others. Six State and two Territory governments (hereafter referred to as States) are responsible for funding and administering public acute and psychiatric hospitals, funding and providing community and public health services (e.g. school health, health promotion, maternal and child health, immunisation, etc.), registering health professionals, licensing public and private hospitals, and transferring health resources to local governments. There are variations across States in organisational structures and policies (e.g. New South Wales decentralises delivery to eight Area Health Services; Queensland decentralises delivery to 38 health service districts). While State governments have primary responsibility for public health there are a number of national strategies jointly run by the Commonwealth and State governments (e.g. public health programmes on smoking, road traffic accidents, etc.). There is an ongoing debate on the appropriate division of responsibilities between the Commonwealth and the State governments. Local governments are responsible for some public health services and public health surveillance (e.g. monitoring food safety standards) although their role varies across the States.

#### Finance and Resource Allocation

Health services are mainly financed from Commonwealth and State-level taxes, out-of-pocket payments and private health insurance. Acute hospital care is delivered in a mix of public and private hospitals. Specialists are either salaried employees or paid on a fee-for-service basis and private general practitioners (GP) are mainly paid on a fee-for-service basis. All residents have access to subsidised primary and secondary care, pharmaceuticals and other services. Co-payments are required on most services, but there are high-cost protection mechanisms in place.



## Individuals

### Resource Contribution Mechanisms

#### Tax (68 per cent of total health resources)

- Commonwealth resources account for approximately 46 per cent of total health expenditure. Commonwealth revenues are raised from general taxation. There is an additional Medicare levy of 1.5 per cent on taxable income above a specified threshold, and a surcharge of 1 per cent on high-income earners (above AUD50,000) who do not buy private insurance cover for hospital treatment. The Medicare levy accounted for approximately 8.5 per cent of national health expenditure.
- State resources account for approximately 22 per cent of total health expenditure. State revenues are raised from a 10 per cent goods and service tax and other tax revenues (e.g. property, employer payroll).
- In addition to these public resources, the Commonwealth provides a tax rebate on private health insurance.

#### Out-of-pocket payments (20 per cent of total health resources)

- Out-of-pocket resources are required for co-payments (e.g. pharmaceuticals, doctor visits) and direct payments (e.g. dental care).

#### Private health insurance (10 per cent of total health resources)

- Voluntary health insurance provides cover for treatment and accommodation as private patients, and other services (e.g. dental and optical services, physiotherapy, prescribed medicines not covered under the national pharmaceutical benefits scheme).
- Private health insurers are not permitted to cover out-of-hospital medical services.
- Privately insured individuals receive a non-means tested 30 per cent tax rebate (35 per cent for those aged 65-69, 40 per cent for those aged 70+). Private health insurers are permitted to charge higher premiums for individuals aged 30+ who have not maintained continuous membership of a private health fund (premium increases by 2 per cent for every year older than 30 until the individual purchases a private health insurance package). More than 40 per cent of the population hold private health insurance.

### Implications for Incentives and Health Principles

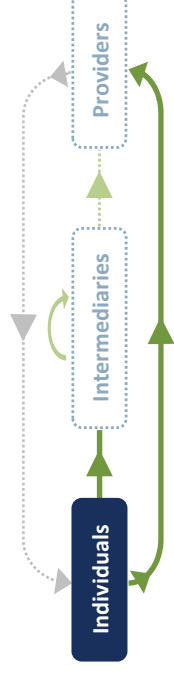
#### Incentives

- Private health insurance funds have limited scope to encourage provider efficiency. The 1995 health insurance reforms allowed health insurers to contract with providers (aimed at encouraging insurers to develop preferred provider networks that accepted the benefit level provided by the funds), but are prohibited from using capitation contracts. In practice, selective contracting and preferred provider networks are not widely used (unpopular with patients and medical profession). Incentives to engage in managed care are low since insurance funds do not manage the full continuum of care (i.e. high-cost and chronic care is mostly borne by the public sector) (Healy *et al.*, 2006).

#### Equity

- Financing health according to ability to pay? There is no available formal analysis of the progressivity of health care payments in the Australian system. Analysts suggest that the public resources are progressive and there is no opt-out for higher income earners, although there are negative equity implications from the rise in out-of-pocket payments (Healy *et al.*, 2006). Out-of-pocket expenditure has been rising in absolute terms, and as a proportion of total health expenditure, since the 1990s. This reflects greater use of co-payments to contain costs in the system, and also shifts in the location of care (e.g. from public to private sector) (Healy *et al.*, 2006). There has been a decline in the number of GPs choosing the option to bulk bill Medicare, leading to an increase in out-of-pocket payments for GP care. Reforms in 2003 offered differential incentives to promote bulk-billing by GPs providing services to specific groups (e.g. rural areas) but there is concern that a two-tier payment system will undermine social solidarity. Public subsidisation of private health insurance also gives rise to unintended redistributive effects. A large proportion of private hospital activity is funded through private health insurance (67 per cent in 2001/02), of which 20 per cent is indirectly funded by the Commonwealth through private health insurance rebates.





- There is concern that expansion of private health care, and higher incomes in the private sector, may have a negative effect on the supply of doctors in the public system (Healy *et al.*, 2006).

#### **Sustainability**

- Concern about cost containment has been the main determinant of reform in recent years in Australia. For example, pharmaceutical expenditure increased by approximately 10 per cent per annum over the period 1993 to 2003 (Healy *et al.*, 2006).
- Private health insurance: Relaxation of community rating regulations (by allowing age-related indexation) has been a key factor in the increase of private health insurance membership. The tax rebate on private health insurance premiums has become an expensive and much-debated policy (Hall *et al.*, 2005; Healy *et al.*, 2006).

#### **Transparency and Accountability**

- Regulation and governance of health care providers occurs at both Commonwealth and State level, leading to blurred responsibilities and lines of authority, interfering with policy implementation (Healy *et al.*, 2006).
- The division of responsibilities between the Commonwealth and State governments is regarded as a source of inefficiency and poor accountability. Health care organisation has not been uniform across the States, although there is a trend of increasing centralisation within the States and of increasing intervention by the Commonwealth (Rix *et al.*, 2005; Philippon *et al.*, 2008). Different services are paid from different sources of revenue, with the effect that expenditure cannot easily be transferred from one level or type of care to another (e.g. from hospitals to primary health care). Commonwealth resources pay the largest share of GP costs, outpatient specialist care, and specialist services for private inpatients. State resources pay for more than 50 per cent of public acute hospital, community and public health services. The delivery of uncoordinated services and programmes by a range of different providers is a key structural problem of the system, and analysts have called for measures to promote better integration in health service financing and management (Healy *et al.*, 2006).



## Intermediaries

### Pooling Resources

#### National public resources

- Commonwealth health resources are pooled at the centre and fund three key areas: medical benefits for non-hospital private care under the Medicare Benefits Schedule, the Pharmaceutical Benefits Scheme, and funding for public hospitals under the Australian Health Care Agreements.
- General purpose Commonwealth funds are allocated to the States via the Commonwealth Grants Commission. Some grants are subject to 'fiscal equalisation' where poorer States are subsidised by richer States to allow all States to provide adequate service without levying higher taxes/surcharges.
- The Australian Health Care Agreements are 5-year grants provided to the States to fund public hospital services. These are capped prospective grants that are allocated using a population needs formula with a performance management component (casemix).
- 5-year Public Health Outcome Funding Agreements are granted to States with agreed target issues and performance indicators. Agreements for the period 2004-2009 focus on communicable diseases, cancer screening, alcohol and tobacco use, women's health, and sexual and reproductive health. Commonwealth support accounts for 33 per cent of public health programme expenditure (the balance provided by State and local government revenue).

#### State public resources

- The States vary in how they allocate resources. The State of New South Wales allocates resources to eight regional health authorities (Area Health Services) using historical funding and a population-based formula. Other States negotiate directly with providers.

### Purchaser-Provider Split

#### Direct provision?

<b>Primary:</b>	GPs are private practitioners. The federal government contracts directly with primary care providers under the Medicare scheme.
<b>Acute:</b>	Acute hospital care is delivered in public and private hospitals. Some, but not all, of public hospitals are directly run by State governments. State governments (or State Area Health Boards) contract with private hospitals and laboratories (private hospitals account for approximately 30 per cent of hospital beds).
<b>Pharmacy:</b>	The federal government contracts directly with pharmacies under the Pharmaceutical Benefits scheme.
<b>Other primary:</b>	State governments arrange for the provision of some additional primary care services (e.g. some dental services and child and family health services).

### Payment to Providers

<b>Primary:</b>	Private medical practitioners are paid on a fee-for-service basis. The Medicare Benefits Schedule (MBS) sets out a schedule of fees which are reimbursed by the federal government. GPs can either 'bulk-bill' (accepting 100 per cent of the schedule fee) or bill patients directly. To encourage bulk-billing, the Government increased the reimbursement of the schedule fee from 86 to 100 per cent from 1 January 2005 with the result that the bulk-billing rate for GP services was 79.8 per cent by June 2009 (Minister for Health and Ageing, 2009). The 'Practice Incentives Program' (PIP) and the 'Service Incentive Program' (SIP) provide incentives for after hours care, aged care access, asthma care, cervical screening, diabetes care, domestic violence support, indigenous health, e-health, practice nurse employment, quality prescribing, rural practice activities and teaching activities. The majority of Australian practices participate in the PIP and SIP (see Case Study 2.5).
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<b>Acute:</b>	Public hospitals are paid on the basis of casemix adjusted budgets in almost all States. Most recently New South Wales has announced plans to move to funding on the basis of episodes of care. Doctors working in public hospitals are either salaried employees or independent contractors to the hospital, paid on a fee-for-service basis. States purchase hospital services from private providers using detailed purchase-of-service contracts.
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**Pharmacy:** The Pharmaceutical Benefits Schedule (PBS) lists all of the medicines available to be dispensed to patients at a Government-subsidised price. Payment includes the manufacturer price, wholesale mark-up (7.5 per cent), retail mark-up to cover storage and handling (ranging from 4% to 15%) and a fee for professional advice and services (from AUD5.99). The PBS encourages generic substitution by giving pharmacists the authority to supply generic alternatives and by imposing brand premiums on consumers who wish to purchase brand-named products priced above the reference product in certain therapeutic groups. Therapeutic price referencing in Australia was introduced in 1996.

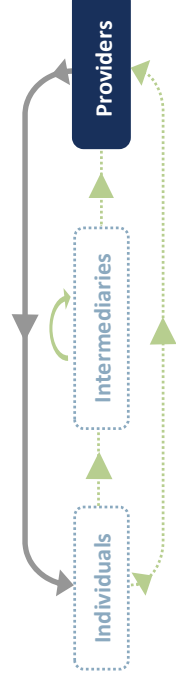
### Implications for Incentives and Health Principles

#### Incentives

- The Australian Health Care Agreements set out conditions and performance indicators but in practice allow the States flexibility in allocating resources to hospitals (Healy *et al.*, 2006). The key condition requires States to provide free public hospital treatment to all eligible individuals.
- The bulk-billing option helps to limit fees faced by individual patients, but in general funding has not been used as a lever to influence clinical practice (Healy *et al.*, 2006).
- Cost shifting issues: State level bodies have incentives to shift the burden of care to services that are funded from Commonwealth resources. States have an incentive to encourage patients to see private doctors who bill the Commonwealth funded Medicare programme, rather than to attend State-funded public hospitals as outpatients. There is an incentive for public hospitals to discharge older dependent patients quickly into Commonwealth-subsidised nursing homes. While these may be regarded as positive responses to incentives, commentators note that the major problem is that cost-shifting is a complex issue that does not always deliver the best patient outcomes (Healy *et al.*, 2006).
- Pharmaceuticals: Reference pricing is used whereby the price of a medicine is determined by its relationship to the price of another medicine of similar therapeutic benefit. The use of generic alternatives is low relative to other countries (10 per cent of prescription volume). A range of initiatives aim to increase the use of generics (e.g. information campaign to prescribers and consumers).

#### Sustainability

- Over the 5 year period of the Australian Health Care Agreements for public hospital funding, States bear most of the risk if demand or costs of public hospital care rise. Given their limited capacity for generating revenue, cost containment and efficiency are key policy priorities. In response, the mechanisms for public hospital funding have changed over time with increasing purchaser specifications and management accountability.
- The shift to casemix adjusted hospital funding has led to efficiency gains. However, there is little evidence of gains in health outcomes and there are complaints that patients are being discharged 'quicker but sicker' (Healy *et al.*, 2006).



## Providers

### Health Basket Dimensions

#### Depth (what is covered by public funding)

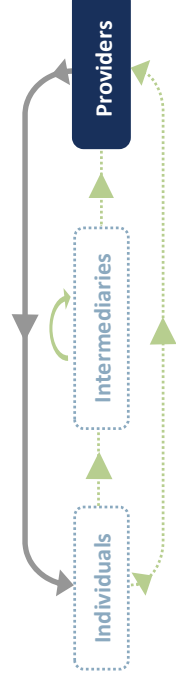
- The Medicare Benefits Schedule lists the services and technologies for which subsidies are provided under Medicare. Services covered include: GP and specialist consultations, diagnostic tests and pathology, inpatient and outpatient treatment as a public patient in a public hospital, eye tests, specified dental surgical procedures, and specified allied health and dental services for chronically ill people. Mental health-related encounters are also included, such as the preparation or review of GP mental health care plans, as well as consultations with psychiatrists and psychologists. There are no limits on the amount of medical services that a patient can use (with some exceptions, e.g. in vitro fertilisation). There are no Medicare subsidies for cosmetic surgery, private dental services, private allied health services, complementary medicine.
- State-run services provide dental care (for school children) and States subsidise dental services (for low-income adults).
- Essential prescription drugs are covered under the Pharmaceutical Benefits Scheme.
- Long-term formal care is provided to older people in Australia through a number of federal programmes. These include residential aged care and community care programmes, such as Home and Community Care, Community Aged Care Packages, Extended Aged Care at Home Packages, Veteran's Home Care, and assistance provided by Day Therapy Centres.
- Some mental health services (such as acute, residential and community care) are funded by the federal and State governments.

#### Breadth (who is covered by publicly funding)

- All residents in Australia are eligible to receive services under the Medicare Benefits Schedule and the Pharmaceutical Benefits Scheme.

#### Height (is there cost-sharing)

- Fees for services listed on the Medicare Benefits Schedule are set by the Commonwealth Government and are publicly available on the Internet.
- Medicare pays 100 per cent of the schedule fee for GP services, 85 per cent of the schedule fee for other out-of-hospital services (e.g. specialist consultations) and 75 per cent of the schedule fee for private inpatient medical services.
- To limit out-of-pocket payment burdens, Medicare covers 80 per cent of out-of-pocket costs over and above an annual threshold level. Pensioners and concession card holders are eligible for large concessions or free treatment.
- Where doctors charge no more than the Medicare rebate level, Medicare pays the benefit directly to the doctor, with no out-of-pocket burden for the patient. This is option is called 'bulk-billing'.
- Where doctors do not bulk-bill, the patient pays the difference between the rebate and the charge levied by the doctor. Bulk-billing is more prevalent for GP services. Most patients face out-of-pocket costs for specialist consultations.
- For hospital services, treatment as a public patient in a public hospital is provided free at the point of use (for inpatient and outpatient treatment), with the doctors and specialists nominated by the hospital. Private patients in public and private hospitals may choose their doctor. Medicare pays 75 per cent of the schedule fee for medical services for private patients in private hospitals (part/all of the balance is claimable under private health insurance where the doctor has a contract with the insurer). Hospital accommodation costs for private patients are not reimbursed by Medicare but may be claimed through private health insurance.
- Co-payments are also required for prescription drugs under the Pharmaceutical Benefits Scheme. Concession card holders (pensioners and others) pay AUD5.40 per prescription and general consumers pay AUD32.90 per prescription. A high-cost protection measure limits the annual co-payments for prescriptions. Above a specified threshold level, concession card holders receive all further prescriptions in one year free of charge, while general consumers pay for further prescriptions at the concessional co-payment rate.



## Health Care Delivery Issues

### Legal status of providers

- Until recently, most hospitals were semi-autonomous organisations with appointed boards. Following pressure to reconfigure hospitals and to improve cost-efficiency, a number of States have since abolished the hospital boards to bring hospitals under more direct State control.

### Waiting lists

- Public hospital services are prioritised via waiting lists and there are associations between waiting times for surgery and socioeconomic factors, income and location.

### Patient choice

- Patients are free to choose a GP and may consult more than one GP.
- Individuals are required to obtain a referral from a GP before consulting a specialist but are allowed to influence the choice of specialist or hospital.
- Patients can choose which private hospital to attend, but there is an incentive to choose a hospital that has entered into a purchaser-provider arrangement with their private health insurer to avoid out-of-pocket payments for hospital stays.
- Private patients are allowed a choice of doctor in public and private hospitals.

### Primary/secondary care integration

- GPs have a gatekeeping role in the system. The Medicare scheme only reimburses the schedule fee for referred consultations and a hospital outpatient department requires referral from a GP if they want to bulk-bill. Specialists can claim a higher rebate when the patient is referred.
- All States have developed chronic disease management programmes to varying degrees. For example, in New South Wales (NSW), the 'NSW Chronic Care Program' targets the care of people with chronic and complex problems who are frequent users of the hospital system, and is currently in its third phase. The aim is to reduce avoidable hospitalisations and improve quality of life for people with chronic illness and their carers. The priority diseases for phase three of the 'Chronic Care Program' are cardiovascular disease, chronic respiratory disease, cancer, diabetes, arthritis and musculoskeletal diseases and dementia.

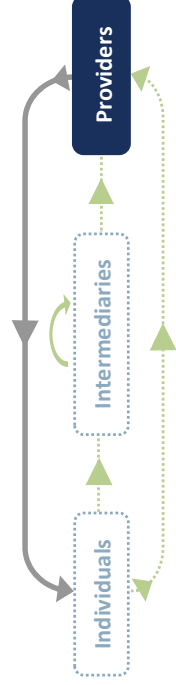
### Public/private interaction

- In most large public hospitals, consultant specialists treat both public and private inpatients. A policy of co-location of private hospitals within or adjacent to a public hospital has been undertaken in some areas.

## Implications for Incentives and Health Principles

### Incentives

- After a decline in bulk-billing in the 2000s, the Government increased the financial incentives for GPs to bulk-bill and also increased the benefit paid for GP services from 86 per cent to 100 per cent of the schedule fee.
- The PIP and SIP (see Case Study 2.5) offer financial incentives to GPs to improve the quality and accountability of their medical services. The scheme has contributed to increases in, for example, the use of information management systems, availability of after-hours services and immunisation programmes (Healy *et al.*, 2006).
- Hospital accreditation is voluntary but private insurers pay higher reimbursement rates to accredited facilities.



**Equity**

- Equity in delivery: Using data from 2001, van Doorslaer *et al.* (2004) found no statistically significant bias in the distribution of the probability of visiting a physician although data did not distinguish between GP and specialist utilisation. The probability of receiving inpatient care had a pro-poor distribution, controlling for health need while the probability of receiving dental care had a pro-rich distribution. Further analysis of the implications of public/private interaction is required given the concerns about two-tier care between public patients covered by Medicare and private patients with private health insurance (European Observatory, 2006).
- Funding of long-term care is complex, with responsibility shifting between different government departments (Healy *et al.*, 2006).

**Universal cover**

- Publicly funded services by Medicare are available to all residents.

Sources: Hall *et al.*, 2005; Rix *et al.*, 2005; Healy *et al.*, 2006; European Observatory, 2006; Philippon *et al.*, 2008; CIA, 2009; Minister for Health and Ageing, 2009; OECD, 2009a

## Canada

# Health System Summary

### Key Indicators

Population:	33.5m
Ratio of population aged 65+ to the total population:	14 per cent
Ratio of population aged 85+ to the total population:	1.8 per cent
GDP per capita:	US\$PPP 39,100 (2008 est.)
Total expenditure on health:	10 per cent of GDP (2006 est.)
Life expectancy at birth:	81.23 years
Infant mortality:	5.04 deaths per 1,000 live births

### Stated Policy Priorities

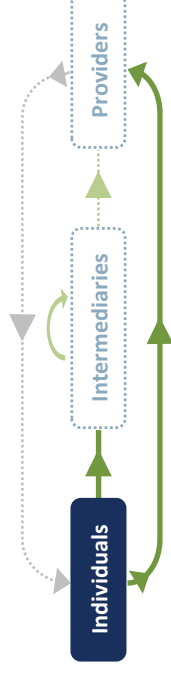
The Canada Health Act (1984) sets out the standards for the public health care insurance system, Medicare. The principal objective of Medicare is to provide medically necessary services on a universal basis without any financial obstacles. Five funding conditions for Medicare are outlined in the Health Act, and these represent the core principles and values of the policy: Public administration (administered and operated on a non-profit basis by a public authority); Comprehensiveness (cover all insured health services provided by hospitals, physicians and other relevant professionals); Universality (ensure entitlement to all insured health services on uniform terms and conditions); Portability (ensure smooth transfer of cover for residents arriving in/leaving Provinces); Accessibility (ensure reasonable access to insured health services, with no financial or other barriers).

### Governance Structure

The health system has a decentralised structure. The federal department, Health Canada, plays an important role in health research, data collection and public health programmes (e.g. tobacco control). The department is responsible for a number of national bodies including the Canadian Institutes of Health Research, the Patented Medicines Prices Review (regulates the wholesale price of patented drugs) and the Public Health Agency of Canada (functions include surveillance, emergency preparedness, infectious disease control, national immunization, etc.). The department is also responsible for non-price drug regulation and approval of drugs for sale. Health Canada is directly responsible for the funding, administration and delivery of health care to selected groups in the population (e.g. First Nations people and Inuit, war veterans, armed forces). At the provincial level, 10 Provinces and 3 territories (hereafter referred to as Provinces) have primary responsibility for the funding, administration and delivery of health care. Province populations range from 43,000 to 12.4mn (Ontario). Most Provinces have established geographically based regional health authorities (RHAs), with the exception of Prince Edward Island. The number of RHAs ranges from 18 in Quebec (with a population of 7.5m) to 6 in Newfoundland and Labrador (with a population of 0.5m). Responsibility for delivering hospital and community-based services (excluding prescription drugs, or physician services) is delegated from the Provinces to these regional health authorities.

### Finance and Resource Allocation

Health services are mainly financed from provincial and federal taxes, out-of-pocket payments and private health insurance. Most acute care facilities are publicly run and specialists and general practitioners (GPs) are generally paid on a fee-for-service basis (although this is becoming less dominant over time). Health services are delivered by acute hospitals, family physicians and specialists (through a variety of practice arrangements including multi-specialty clinics or practices). All individuals have access to services covered under Medicare, the public insurance system. These include medically necessary hospital, diagnostic and physician services. Public subsidisation is also provided for prescription drugs, home care, continuing care, long-term care and other services, although there is considerable variation in the extent of coverage and requirement for out-of-pocket payment across Provinces, and there is also variability in physical access across Provinces.



## Individuals

### Resource Contribution Mechanisms

#### Tax (70 per cent of total health resources)

- Taxes provide the main source of health care financing in Canada. The majority of revenues are collected from income taxes, consumption taxes and corporate taxes. The federal government transfers a portion of general tax revenue to the Provinces according to the terms negotiated with the Provinces (currently covered by a Health Accord that expires in 2014). The federal government also spends general tax revenue on public health, pharmaceutical regulation, First National and Inuit health care services, health research, etc. Some Provinces collect supplementary health revenues via notionally earmarked taxes called 'premiums'. These are flat rate charges levied on individuals/households although exemptions apply for those on low incomes. In Ontario, the health premium is a proportional tax, with different rates levied on different income bands, collected as part of the income tax system. The supplementary health revenues are estimated to account for less than 13 per cent of provincial health care resources.
- Municipal taxes account for less than 1 per cent of total health resources and are mainly used for public health expenditure by cities.

#### Out-of-pocket payments (15 per cent of total health resources)

- Out-of-pocket payments are required for ambulatory pharmaceuticals, contributions to the 'hotel' costs of residential care (and inpatient care where a patient chooses to stay in a private or semi-private room), private purchase of home support and home care services, physiotherapy, chiropractic, naturopathic services, etc.

#### Private health insurance (12 per cent of total health resources)

- Private health insurance provides cover for services not available under the public insurance system. Private health insurance is a dominant source of funding for dental care (54 per cent of dental care funding), prescription drugs (34 per cent of prescription drug funding), vision care (22 per cent of vision care funding) and non-physician health providers (e.g. psychologists, physiotherapists, chiropractors.). Dental care and prescription drugs account for approximately 80 per cent of total private health insurance payments. Most private health insurance is employment based, forming a portion of employees' benefits packages. Private health insurance premiums paid by employers are not liable for tax (except in Quebec). The private health insurance market is not community rated and the market is small.

#### Other sources (less than 3 per cent of total health resources)

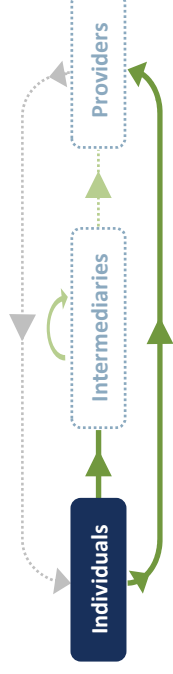
- Other sources of revenue include social insurance resources from provincial workers' compensation schemes (administered by workers' compensation boards). Compulsory employer contributions are used to pay health benefits for work-related injuries.

### Implications for Incentives and Health Principles

#### Incentives

- Hidden tax subsidies: The tax free status of private health insurance premiums constitutes a tax expenditure subsidy, thereby increasing the proportion of health care financing that is ultimately paid from public tax resources. The expenditure subsidy is estimated to have cost the government CAN\$2.2bn (€1.65bn at 2010 exchange rates) in tax revenue foregone in 2004 (Marchildon, 2005). Tax deductions on medical expenses that exceed 3 per cent of an individuals' income constitute an additional source of indirect public subsidisation (Commission on the Future of Health Care in Canada, 2002).





**Equity**

- Financing health care according to ability to pay? Analysis of progressivity in British Columbia identified a proportional/marginally progressive tax distribution (covering hospital and physician services), but this may vary across Provinces (e.g. Alberta implemented a proportional income tax). Also, if financing sources for pharmaceuticals and other health care services are included in the analysis, it was concluded that 'overall financing for healthcare would certainly be regressive' (McGrail, 2007; 134).

**Sustainability**

- Total expenditure: In the 1990s, growth in private health expenditure exceeded that of public health expenditure, driven to a large extent by growth in prescription drug expenditure.
- Federal Transfers: Mechanisms for automatically increasing federal transfers in line with GDP and population growth were removed in the mid-1990s thereby introducing greater scope for cost-containment. Provincial governments argued (and this is ongoing) that health care expenditure was at risk of crowding out other priorities (e.g. education) and made regular demands for increases in the transfers. In 2004 a new Canada Health Transfer was introduced with a higher allocation for health relative to education and social expenditure (Commission on the Future of Health Care in Canada, 2002; Marchildon, 2005; Centre for Health Services and Policy Research, University of British Columbia, personal communication; 26 March 2010).

**Transparency and Accountability**

- Identifying the proportional contribution of federal transfers to provincial health resources is complex (Commission on the Future of Health Care in Canada, 2002), interfering with the transparency of health resources.



## Intermediaries

### Pooling Resources

- Federal taxes are pooled by the federal government. Federal resource transfers for health to the Provinces are allocated through the Canada Health Transfer (together with the Canada Social Transfer for education and social services). These global budgets are earmarked via four avenues: (i) Medicare benefits (the public insurance system); (ii) pharmaceutical benefits scheme; (iii) payments to provincial governments as purchasers of hospital services; (iv) payments to providers of nursing home services. The value of the total transfer for each province is calculated on a per capita basis. A proportion of these transfers are issued in cash to the Provinces. The remaining proportion is provided in tax points: the federal government reduces its percentage of personal and corporate income taxes to allow the Provinces to increase their own tax rates. The total federal transfer accounted for approximately 36 per cent of provincial health expenditures in 2005/2006.
- The federal government is directly responsible for the funding, administration and delivery of services to First Nations people and Inuit, war veterans, members of the Canadian armed forces and the Royal Canadian Mounted Police and inmates of federal penitentiaries.
- Provincial taxes are pooled by the provincial government. Most Provinces are divided into two or more RHAs. A large proportion of provincial health resources are transferred to RHAs for services including acute and rehabilitation hospitals, long-term care, home care, mental health care services. Some Provinces (particularly the western Provinces) allocate to RHAs using population-based resource allocation formulae that attempt to evaluate the differing population health needs of each RHA, and others use historically-based global budgets.

### Purchaser-Provider Split

#### Direct provision?

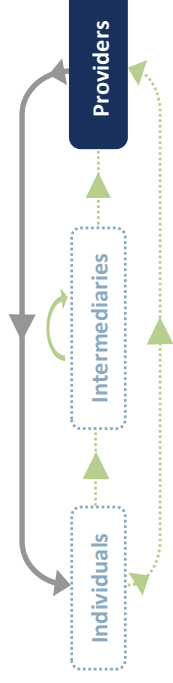
<i>Primary:</i>	Private family/GPs are mainly private practitioners.
<i>Acute:</i>	Most acute care facilities are directly funded by the RHAs.
<i>Pharmacy:</i>	Pharmacies are private-for-profit commercial entities.
<i>Long-term Care:</i>	For nursing home and other long-term care facilities, there is a mixture of direct funding by RHAs and private contracting.
<i>Other primary:</i>	Most dental and optical services (and other primary care services such as chiroprody, physiotherapy, etc.) are funded and delivered privately (although for example, physiotherapy services provided in acute care hospitals can be funded through hospital budgets and employer-employee arrangements, or by hospitals contracting with private physiotherapists).

### Payment to Providers

- Primary:* Most physicians are paid on a fee-for-services basis (accounting for more than 80 per cent of physician remuneration). The fee-for-service schedules and working arrangements for all physicians are negotiated directly with the provincial health ministries, and vary across Provinces. While the dominant mode of remuneration is fee-for-service, some Provinces have pursued alternative payment contracts with family/general practitioners (which include variations on a blended system of salary, capitation and fee-for-service). For example, a remuneration model for family health networks has been developed in Ontario to provide incentives to promote preventive health care and chronic disease management. This model is based on a capitated rate for all registered patients, fee-for-service payments at a rate of 10 per cent of the provincial schedule for most services, bonuses for targeted preventive care, payment for taking on new patients, continuing medical education allowances, some practice management fees and some access to nurse practitioners remunerated by the government. Only 36 per cent of Ontario GPs are paid on an exclusively fee-for-service basis (Health Canada, 2008). Over the past decade, a number of Provinces have introduced separate payments for on-call availability (these payments would be in addition to fees for services actually delivered during on-call periods).



<p><b>Acute:</b></p>	<p>Hospitals and clinics are allocated global budgets by RHAs to provide services under the Medicare system (although experiments with activity-based funding have been announced in some Provinces). Nurses are salaried employees and salaries are determined by collective bargaining between nurses' unions and province-wide employer organisations.</p>
<p><b>Pharmacy:</b></p>	<p>Provincial governments subsidise the purchase of prescription drugs and impose cost containment strategies for these expenditures. These measures include restrictive formularies and reference pricing based on the lowest-cost alternative. In British Columbia, the PharmaCare program subsidises the cost of drugs above a threshold level of expenditure (based on a specific percentage of income), with exceptions for some groups (e.g. residents of long-term care, coverage for some mental health drugs/populations). In Ontario, drug products are reimbursed at the listed drug benefit price (DBP) (or lowest DBP for an interchangeable category), plus a mark-up, plus the lesser of a pharmacy's posted usual and customary fee or the Ontario Drug Benefit (ODB) dispensing fee, minus the applicable co-payment amount for every ODB prescription filled. Pharmacists are largely salaried employees at private pharmacies or in hospitals. Some pharmacists are owner-operators of private pharmacies.</p>
<p><b>Long-term Care:</b></p>	<p>As a general rule, long-term care services are paid for by the provincial government but accommodation and meal costs are the responsibility of the individual, unless means-testing demonstrates that the individual cannot afford such expenses.</p>
<p><b>Other primary:</b></p>	<p>For publicly provided dental, optical and other services, reimbursement is generally on a fee-for-service basis.</p>
<p><b>Implications for Incentives and Health Principles</b></p>	
<p><b>Incentives</b></p>	
<ul style="list-style-type: none"> <li>- Federal to province: Provisions in the Canada Health Act (1984) prohibit the use of user fees or extra-billing by physicians or hospitals in the Medicare system (with the exception of 'frills' in hospitals such as telephone, television and payment to physicians for non-covered services such as forms required by employers). The federal government can withhold part of the federal cash transfer to Provinces if extra-billing/user fees occur. The importance of this incentive is influenced by the size of the cash transfer in the total federal transfer (i.e. the tax point portion of the federal transfer is effectively unconditional as there is no mechanism to withhold these tax resources that are raised directly by the province). Commentators note that the federal government has been reluctant to use this financial penalty for other provincial practices that infringe on the principles of the Canada Health Act (Commission on the Future of Health Care in Canada, 2002).</li> </ul>	<ul style="list-style-type: none"> <li>- Province to RHA: Budget deficits by RHAs are explicitly forbidden in some Provinces, but allowed under certain circumstances in other Provinces. In practice, cost-overruns are often covered by Provinces.</li> </ul>
<ul style="list-style-type: none"> <li>- Payment to providers: Payment to physicians remains under the control of Provinces, restricting the managerial scope of the RHAs.</li> </ul>	<p><b>Equity</b></p>
<ul style="list-style-type: none"> <li>- Federal transfers: With different income levels across Provinces, the revenue raised through the tax point portion of the federal resource transfer will vary. The cash component provides the opportunity to compensate for these variations but proposals to introduce population-needs based federal transfers are opposed by wealthier Provinces (Marchildon, 2005).</li> </ul>	



## Providers

### Health Basket Dimensions

#### **Depth (what is covered by public funding)**

- The public insurance system, Medicare, covers medically necessary services. These include almost all hospital, physician and diagnostic services.
- Medicare also covers a portion of prescriptions, home care, continuing care and long-term care. In some Provinces public cover is also provided for some rehabilitation, physiotherapy and chiropractic care. The Canada Health Act does not mandate public coverage of mental health services outside of hospitals, but all Provinces cover them to varying degrees. Inpatient and outpatient mental health services are considered part of the 'medically necessary' component of the Canada Health Act, but services by other health professionals (such as psychologists) are not.
- Most dental and optical services are not included in Medicare.

#### **Breadth (who is covered by publicly funding)**

- All residents are eligible to receive the medically necessary hospital, physician and diagnostic health care services provided under Medicare.
- For other services covered by the provincial Medicare systems, eligibility restrictions (e.g. via means testing) can apply.

#### **Height (is there cost-sharing)**

- There are no user fees for the medically necessary hospital, physician and diagnostic services provided under Medicare.
- Public coverage for the other services is less than 100 per cent. The cost sharing schedules (e.g. user fees, co-payments, deductibles, etc.) vary by province.
- For dental, optical and other primary care services not included in Medicare, if a resident is receiving social assistance, then a portion or all of the costs for some of these services may be covered. For example, some Provinces offer free dental care to children although 94 per cent of dental services are provided privately (with private health insurance funding at approximately 50 per cent).

### Health Care Delivery Issues

#### **Legal status of providers**

- The legal status of hospitals has changed over time from private not-for-profit institutions (prior to the Canada Health Act). Since the establishment of RHAs, there is a close relationship between hospitals and government and many are no longer governed by an individual board of directors.

#### **Waiting lists**

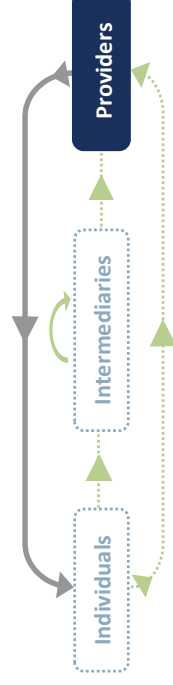
- Restricted provincial expenditure on health capital (e.g. diagnostic equipment) in 1990s has led to bottlenecks in the provision of diagnostic services and long waiting lists for some services. Waiting lists for surgical procedures and specialist appointments are also observed, but vary widely across Provinces and over time.

#### **Patient choice**

- Family physicians provide the majority of primary care services. There are no restrictions on patient choice of family physician in most cases.

#### **Primary/secondary care integration**

- Some Provinces use GPs as gatekeepers to specialists (e.g. in British Columbia, specialists are paid lower rates if there is not a referral from a GP in place).
- Most Provinces have their own specific frameworks for healthy living and the prevention of chronic disease. For example, British Columbia has an 'Expanded Chronic Care Model' where report cards are published regularly on disease prevalence, incidence, patient survival, costs, and performance gaps, using information from newly established chronic disease registries. A web site has been created to give patients and practitioners access to information and tools to support them in managing chronic diseases. The Alberta NetCare Electronic Health Record is a province-wide health information system that links physicians, pharmacists, hospitals, home care and other



providers across the Province. The electronic health record stores pertinent patient information online to allow health care providers instant electronic access to a patient's prescription history, allergies and laboratory results. Ontario has a history of chronic disease initiatives at provincial, municipal and community levels (e.g. Family Health Teams), but they are very fragmented. Family medicine groups (FMGs) in Quebec are very similar to Ontario's Family Health Teams. An FMG brings together 6 to 12 GPs who commit to providing a full range of medical case management services and extended hours to patients who have chosen to enrol with them. Services include patient assessment, care and follow-up, diagnosis and treatment of acute and chronic problems, along with disease prevention and health promotion. These services are provided 24 hours a day, 7 days a week. FMG services are intended to complement those provided by hospitals, emergency departments and others. They increasingly make use of nursing staff to support physicians in the different stages of the care process.

#### **Public/private interaction**

- Private financing covers services that are not funded by Medicare, or are partially funded by Medicare. Private health insurance and out-of-pocket payments together account for almost all dental and vision care costs and more than 50 per cent of prescription drug costs.
- There are a growing (but still small) number of private advanced diagnostic clinics that are funded mainly from out-of-pocket payments and private health insurance.

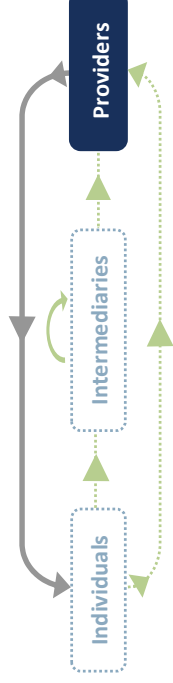
#### **Implications for Incentives and Health Principles**

##### **Incentives**

- Family Health Teams (FHTs) in Ontario were implemented across the province since 2004 as part of Ontario's health transformation agenda to promote patient-centred, integrated health care, reduce waiting times and increase access. FHTs provide comprehensive, co-ordinated, interdisciplinary primary care services to a defined population on a round-the-clock basis with physicians working as part of a team involving nurse practitioners, mental health care staff and social workers. The core services provided by FHTs include health promotion and disease prevention, chronic disease management and self-management support. Patient enrolment with an FHT physician is voluntary; incentives for physicians to participate in the scheme include choice of governance model, blended compensation, working in interdisciplinary teams and flexibility to meet population needs. However, it is not known at the time of writing whether all FHTs are operating according to the intended interdisciplinary model as no systematic evaluation has been carried out to date.
- 'Medically necessary' services are, as the Canada Health Act is actually applied, restricted to (most) services provided by physicians and (most) services provided in hospitals. As a result, for example, prescription drugs provided to a patient while a hospital inpatient are covered under the terms of the Act, but once the patient leaves hospital, the same prescription drugs are no longer publicly financed (i.e. in practice no longer defined as 'medically necessary' (Centre for Health Services and Policy Research, University of British Columbia, personal communication; 26 March 2010).

##### **Equity**

- Equity in delivery: Using data from 2001, van Doorslaer *et al.* (2004) found that utilisation of GP care had a significant ( $p < 0.05$ ) pro-poor distribution, even after controlling for health care need, although the probability of seeing a GP had a pro-rich distribution. Utilisation of specialist physician care had a significant ( $p < 0.05$ ) pro-rich distribution, after controlling for need. Hospital inpatient utilisation was distributed in favour of the poorer income deciles, after need standardisation (significant at  $p < 0.05$ ). The variation is interesting given that each of these services are publicly funded, free at the point of use, for all. Dental care utilisation had a significant pro-rich distribution ( $p < 0.05$ ) (van Doorslaer *et al.*, 2004). Dental care is almost fully funded from private resources and these results suggest that lack of affordability is limiting dental care for poorer groups.
- Regional variation: There is very little variability across the Provinces in the provision of services that are required under the Canada Health Act (i.e. medically necessary hospital, physician and diagnostic services), while access to provincial drugs plans and height of public cover are uneven across Provinces (Marchildon, 2005).



- Public/private interaction: Private health insurance coverage for services that are provided by the public insurance system (hospital and physician services) is prohibited (by law) or discouraged (via restrictions on private fees) in all Provinces. This prevents privately insured patients receiving a private alternative, or faster access, to services already financed by the public system. The legality of this prohibition has been challenged in the Supreme court and there are debates on expanding the role of the private market in the health sector (Marchildon, 2005). Private purchase of advanced diagnostic services from private clinics may enable patients to secure faster treatment by using the privately purchased test results to jump the queue for publicly funded treatment. This interferes with the universality principles of the Canada Health Act (Marchildon, 2005).

**Sustainability**

- The Commission on the Future of Health Care in Canada (2002) recommended the introduction of public funding protection against 'catastrophic' prescription costs and there are concerns that growing cost of prescription drugs have not been addressed (Marchildon, 2005).

**Universal cover**

- The publicly funded hospital, diagnostic and physician services provided under Medicare are available to the total population, consistent with the principle of universal coverage. Other publicly funded services (e.g. provincial drug plans) are either restricted to vulnerable populations (e.g. means tested) or involve cost sharing.

Sources: Commission on the Future of Health Care in Canada, 2002; van Doorslaer *et al.*, 2004; Marchildon, 2005; McGrail, 2007; Health Canada, 2008; CIA, 2009; OECD, 2009a; Centre for Health Services and Policy Research, University of British Columbia, personal communication [26 March 2010]

## England

# Health System Summary

### Key Indicators (for UK)

Population:	61.1m
Ratio of population aged 65+ to the total population:	16 per cent
Ratio of population aged 85+ to the total population:	2.1 per cent
GDP per capita:	US\$PPP 36,500 (2008 est.)
Total expenditure on health:	8.4 per cent of GDP (2006 est.)
Life expectancy at birth:	79.01 years
Infant mortality:	4.85 deaths per 1,000 live births

### Stated Policy Priorities

The core objectives of the National Health Service (NHS) are that the NHS should be available to all those in need, provide a comprehensive range of services and be free at the point of use. The key supporting principle for these objectives is to secure equal access for equal needs. Other, secondary objectives include improving health outcomes, narrowing health outcomes inequalities, reducing waiting times, improving patient satisfaction and improving value for money.

### Governance Structure

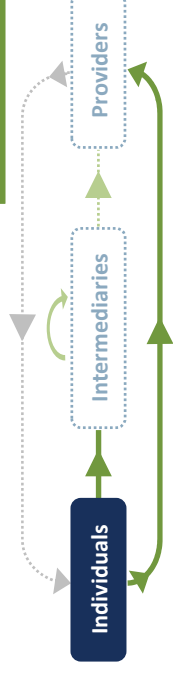
At the national level the Department of Health is responsible for setting health care standards (via strategy, policy, legislation and regulation) and supporting delivery (via performance monitoring and evaluation etc.). The Department of Health is supported by a range of advisory committees and by other 'arm's length' bodies. Arm's length bodies include the National Institute for Health and Clinical Excellence (NICE) which assesses new and existing interventions for clinical and cost-effectiveness to determine inclusion in the NHS benefits package. Also at the national level, the Care Quality Commission is the independent regulator of all health and adult social care in England.

In England, the Department of Health controls 10 Strategic Health Authorities at the regional level. Strategic Health Authorities are responsible for health services in the geographically defined area and monitor the performance of NHS Trusts. Services are managed by NHS Trusts and include: 168 Acute Trusts and 73 Mental Health Trusts (overseeing 1,600 hospitals and specialist care centres), 122 Foundation Trusts (hospitals with greater autonomy), 12 Ambulance Trusts, 152 Primary Care Trusts (overseeing 37,000 GPs and 21,000 NHS dentists) and Care Trusts (social care services).

While the focus of this profile is on England, it is noted here that the biggest difference with Northern Ireland is that in the latter the NHS is integrated with social services (Health and Personal Social Services).

### Finance and Resource Allocation

The English health system is predominantly financed by general taxes with a small proportion of private health insurance and out-of-pocket funding. All individuals have access to publicly funded health care and most of these services are available free at the point of use. User fees apply for prescription medicines, dental and optical services. GPs contract with Primary Care Trusts and are paid on a mixed payment basis (capitation and other payments) and consultant specialists are mainly paid on a salary basis in NHS Trust/Foundation Trust hospitals.



## Individuals

### Resource Contribution Mechanisms

#### Tax (87 per cent of total health resources)

- National tax revenues account for the largest proportion of total health care financing in the UK.

#### Statutory health insurance

- There are no social insurance contributions that are earmarked to the health sector.

#### Out-of-pocket payments (12 per cent of total health resources)

- Out-of-pocket payments are required for user fees on pharmaceuticals, dental and optical care.

#### Private health insurance (1 per cent of total health resources)

- Approximately 10 per cent of the population purchase voluntary complementary private health insurance in the UK, accounting for 1 per cent of total health care resources.

### Implications for Incentives and Health Principles

#### Equity

- Equity in ability to pay: Evidence from the early 1990s indicates that tax and social insurance contributions in the UK were progressive (richer people pay higher proportions of their income) while out-of-pocket payments were regressive (Wagstaff *et al.*, 1999).

#### Sustainability

- In the late 1980s a review team was established to look at appropriate health care financing, but concluded that tax financing was an effective means of cost control and no changes to NHS financing were recommended (Oliver, 2005a).
- There has been a period of unprecedented increase in public expenditure on the NHS in recent years, partly driven by the goal to match average levels of health expenditure in other European countries. From 1999 to 2011, NHS expenditure will have been growing by an average of 6.7 per cent per annum (Oliver, 2005a, [www.kingsfund.org.uk](http://www.kingsfund.org.uk); last accessed 02 July 2010).





## Intermediaries

### Pooling Resources

- General tax resources are pooled by the Government and allocated to the Department of Health for the NHS through the national budget process.
- The Department of Health allocates approximately 85 per cent of these resources to the Primary Care Trusts using a weighted capitation formula. Age structure, standardised mortality, morbidity, unemployment rates, elderly people living at home, ethnic origin, socio-economic status and cost of living adjustments by area are taken into account in the capitation allocations.
- The remaining 15 per cent is held in centrally managed budgets, allocated to training, research and development, information technology and other areas.

### Purchaser-Provider Split

#### Direct provision?

Primary Care Trusts are made up of GPs in the local area and supported by nurses, midwives, health visitors, social services and others, covering populations of 90,000 to 1.2m. Primary Care Trusts are responsible for providing primary care services and commissioning secondary and tertiary health care via service level agreements for those living in the geographical catchment area. The Primary Care Trusts are required to purchase services from all health providers within a detailed framework, encompassing standards and targets set out by the Department of Health and monitored on its behalf by the Strategic Health Authorities. GPs are independent practitioners who contract with Primary Care Trusts (although one third of GPs are salaried employees). GP contracts are of two types: General Medical Services (GMS) and Personal Medical Services (PMS). PMS is essentially a contract regulating the provision of services additional to those provided under the GMS, such as minor surgery, treating the homeless or those with drug addictions, etc.

**Acute:** NHS hospital services are delivered in NHS Trusts - semi-independent, non-profit hospitals with some freedom to set pay levels, skill mix and service delivery.

**Pharmacy:** Community pharmacists are independent providers who operate under contract with Primary Care Trusts. The contract, introduced in April 2005, allows for the delivery of three types of service: essential, advanced (medicines use review) and enhanced (e.g. stop smoking programs).

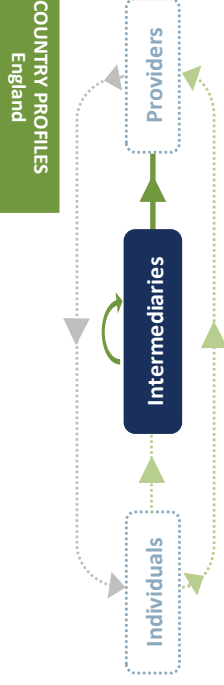
**Mental Health:** Primary Care Trusts fund public mental health providers.

**Other primary:** Most dentists are independent contractors and a new dental contract was introduced in 2006.

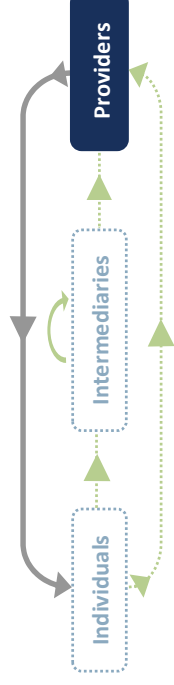
### Payment to Providers

**Primary:** Primary Care Trusts are allocated weighted capitation budgets to cover primary and secondary care. Primary Care Trusts are permitted to retain any budget surpluses to be spent on services/facilities that benefit patients. GP practices may engage in 'practice based commissioning'. Indicative commissioning budgets are assigned by the Primary Care Trust to the GP practice to directly manage delivery of care for their patients and the GP practices are allowed to keep at least 70 per cent of any savings made (Oliver, 2006a). Independently contracted GPs are paid via a mixed payments system including capitation (using a national allocation formula based on list size and composition by age and sex), fixed practice allowances, target payments (e.g. childhood immunisation), fee-for-service and pay-for-performance (Quality and Outcomes Framework, QOF). Capitation accounts for approximately 60 per cent of overall GP income and payments under the QOF account for approximately 25 per cent of income. There is a separate contract for practices wishing to opt-in to provide out-of-hours services.

**Acute:** Hospitals are reimbursed using Payment by Results, a type of casemix funding, which replaced block grants. Hospital consultants are mainly paid by salary although they can also receive additional distinction awards. Consultants are also permitted to work in the fee-for-service private sector.



<p><i>Pharmacy:</i></p> <p>Community pharmacists are reimbursed for the total price of the medicine, less a deduction for the discount received by the wholesaler, plus a professional fee for each item dispensed and an allowance for containers and measuring devices. The total price of the medicine reimbursed by the NHS depends on the brand, or if the medicine is generic, the pharmacist is paid the Drug Tariff Price. The Drug Tariff Price sets a maximum reimbursement price for an unbranded generic medicine. Pharmacists negotiate with wholesalers for discounts and are allowed to retain discounts, although all the Pharmaceutical Services Negotiating Committee must be notified of any discounts. In the UK, manufacturers can freely set ex-factory prices.</p>	<p>Resources for publicly provided mental health services are allocated through the Primary Care Trusts, largely in the form of 'block' contracts to providers of mental health services.</p>
<p><i>Mental health:</i></p>	<p>Dentists are paid an annual sum for delivering an agreed number of 'courses of treatment' weighted by complexity. However, the overall Primary Care Trust allocations to individual providers are largely determined by historical allocations. Providers of eye care to eligible persons (over 60s, those on low incomes) receive a fee-for-service for eye tests, and Primary Care Trusts provide vouchers to eligible persons for other eligible services such as glasses.</p>
<p><b>Implications for Incentives and Health Principles</b></p>	
<p><b>Incentives</b></p>	
<ul style="list-style-type: none"> <li>- Primary Care Trusts: With the opportunity to retain budget surpluses, Primary Care Trusts have an incentive to control costs and ensure efficient use of resources.</li> <li>- GP contract: Under the 2004 GP contract, a proportion of GP income is linked with patients' reported experiences on access and choice and on a range of other quality and outcomes indicators. The National Institute for Health and Clinical Excellence (NICE) is responsible for updating the quality criteria against which GPs are assessed (Oliver, 2009). Key achievements of the GP contract include: 98 per cent of GP practices offer patients a range of appointment times; 94 per cent meet the consultation time target (minimum 10 minutes for pre-booked appointments; minimum 8 minutes for non-booked appointments); 82 per cent have a receptionist who is contactable for a minimum of 45 hours per week (Oliver, 2006b). A patient survey in 2007 assessed views on how quickly patients were able to book a GP appointment, whether they discussed choice with the GP and whether they were satisfied with the GP opening hours. Results were used to give financial rewards to good performing practices. Results indicated that most GPs are discussing choice of provider with their patients and are in receipt of the relevant incentive payment (Oliver, 2008a). See Case Study 2.3.</li> <li>- Hospital consultants: there is an incentive to maximise private sector (fee-for-service) activity. Reforms to introduce some activity-based remuneration for salaried consultants are being considered.</li> <li>- Practice-based commissioning: By 2006 some Primary Care Trusts were reporting savings of £1m as a result of savings made by practice-based commissioning (Oliver, 2006a).</li> <li>- Payment of hospitals by procedure (fixed price per procedure) is intended to encourage non-price competition (e.g. quality) but there is a risk that hospitals will discharge patients early to shift costs to the Primary Care Trusts (Oliver, 2005a).</li> </ul> <p><b>Sustainability</b></p> <ul style="list-style-type: none"> <li>- GP contract: The 2004 contract increased GP salaries with budgetary implications for the Government and the performance criteria have been made more stringent to make it more difficult for GPs to meet the targets and receive the financial rewards (Oliver, 2009). Following the introduction of the GP contract, the average GP salary increased by approximately 30 per cent (Oliver, 2009).</li> </ul>	



## Providers

### Health Basket Dimensions

#### Depth (what is covered by public funding)

- The NHS provides primary, mental health, social and hospital care.

#### Breadth (who is covered by publicly funding)

- There is universal access to services covered under the NHS.

#### Height (is there cost-sharing)

- User fees apply for dental and optical services in the NHS but exemptions are extensive (e.g. for low earners, school children, specific chronic illnesses, older ages). For publicly subsidised dental care, patients pay a user charge for each course of dental treatment based on three 'bands' which broadly reflect differences in the degree of complexity.
- Patients who are non-exempt from charges for NHS prescription services are charged a flat fee per prescription item (£7.20/€8.30). Approximately half of the population are exempt from the charge (due to age, income, chronic illness criteria).

### Health Care Delivery Issues

#### Legal status of providers

- The majority of health care providers are state-owned. An NHS Trust is awarded the status of a Foundation Trust if it meets 6 performance criteria (responsiveness to patients, clinical standards, leadership and management, commitment and support of staff, partnership working and stakeholder support, financial support). Hospitals with Foundation Trust status are given greater autonomy in how to meet performance standards, how to pay staff and other issues. There are 122 Foundation Trusts in England ([www.nhs.uk/NHSEngland](http://www.nhs.uk/NHSEngland); last accessed 12 February 2010).

#### Waiting lists

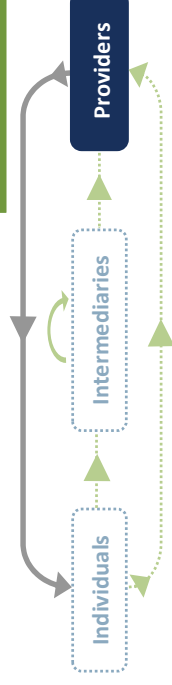
- There is a national target of a maximum inpatient wait of 18 weeks from referral by a GP to treatment.

#### Patient choice

- Patients can choose to register with a GP in their area of residence.
- Where a patient is being referred for elective surgery, GPs are required to offer the patient a choice of location.

#### Primary/secondary care integration

- GPs act as gatekeepers in the system. Patients have to be referred by their GP to the hospital for any interventions that cannot be provided by the GP practice.
- Programmes for managing chronic disease management, drawing on US models, have been piloted in a number of Primary Care Trusts (Robinson, 2004). The 'Expert Patient Programme' (see Case Study 2.10) develops the role of the patient in their own care and is a chronic disease self-management programme which comprises a six week generic training course for adults with a chronic disease run in Primary Care Trust sites (although with no GP involvement). However, there has been no evaluation of impact on patient outcomes or health care utilisation. A key driver of chronic disease management initiatives is the policy of 'practice based commissioning' (see Case Study 2.1), where general practices purchase services on behalf of their patients. The rationale is that this may lead to better services for those with long-term conditions if providers are encouraged to seek ways of providing more local care. Community services (crucial for management of long-term conditions) are run by Primary Care Trusts but these are due to be split off. Several options for how this will be done are under consideration including social enterprises (i.e. not-for-profit non state organisations), integration with NHS hospitals or mental health services, or becoming stand alone NHS trusts.



### Public/private interaction

- A large proportion of capital investment in NHS Trusts is undertaken by private firms contracted to build facilities and operate non-clinical ancillary services.
- NHS purchasers of health care are permitted to use private sector facilities (in or outside of the local area or abroad) in order to reduce waiting times for elective surgery.
- As part of the health reform programme, there is an aim to introduce a wider range of health care providers, by introducing more providers from the voluntary and private sectors to bring more capacity, more innovation and new ways of working.

### Implications for Incentives and Health Principles

#### Incentives

- Foundation Trust status: There is scepticism about the extent to which Foundation Trusts will have greater autonomy in a system where the Government is still ultimately accountable for the performance and organisation of health care (Oliver, 2005b).

#### Equity

- Equity in health care delivery: Using data from 2001, available analysis indicates that the distribution of GP utilisation was significantly pro-poor while there was no evidence of inequity in the distribution inpatient hospital care. Evidence on inequity in specialist outpatient care was mixed (van Doorslaer *et al.*, 2004).
- Top-ups: Some procedures/pharmaceuticals are not available in the NHS package of benefits. Patients can pay for these services privately, but if the service forms part of a larger episode of care, the patient has to pay for all aspects of that care privately. There are proposals to allow private 'top-ups' – whereby a patient is permitted to pay for part of their package of NHS care privately (i.e. a specific aspect of care that they want to receive but that is not provided in the NHS benefits package). There are potential equity implications from allowing private top-ups (e.g. the creation of a two tier system in the NHS) (Oliver, 2008b).

#### Universal cover

- There is universal access to the NHS.

Sources: Wagstaff *et al.*, 1999; Robinson, 2004; van Doorslaer *et al.*, 2004; Oliver, 2005a, b; 2006a, b; 2008a, b; CIA, 2009; OECD, 2009a; Oliver, 2009; www.statistics.gov.uk/ [last accessed 02 July 2010]; www.dh.gov.uk/ [last accessed 02 July 2010]; www.kingsfund.org.uk/ [last accessed 02 July 2010]; www.nhs.uk/NHSEngland [last accessed 12 February 2010]; London School of Hygiene and Tropical Medicine, personal communication [12 March 2010]

## Germany

### Health System Summary

#### Key Indicators

Population:	82.3m
Ratio of population aged 65+ to the total population:	20 per cent
Ratio of population aged 85+ to the total population:	5 per cent (aged 80+)
GDP per capita:	US\$PPP 35,400 (2008 est.)
Total expenditure on health:	10.6 per cent of GDP (2006 est.)
Life expectancy at birth:	79.26 years
Infant mortality:	3.99 deaths per 1,000 live births

#### Governance Structure

The Federal Assembly, the Federal Council and the Federal Ministry of Health and Social Security are the key actors at the national level. Health-related social services are regulated through a number of statutory insurance schemes. The most prominent scheme is the statutory health insurance (SHI) scheme. Others include accident insurance, retirement insurance (which covers rehabilitation) and long-term care insurance. SHI is regulated at the federal level by the Social Code Book (SCB) which sets out regulations for membership, contents of the sickness fund benefit packages, negotiations between sickness funds and health care providers, the risk compensation scheme, etc. Long-term care is also regulated by the SCB. Institutions at the federal level include: Federal Insurance Authority, responsible for supervision of nationally operating sickness funds. The Federal Joint Committee (with representatives from the sickness funds, provider groups, patient organisations, etc.) was established to facilitate self-regulation processes.

At the state level, there are 16 *Land*er governments. These do not have an exclusive health ministry but in most areas health is combined with a ministry also covering labour and social policy. The *Land*er governments are responsible for maintaining hospital infrastructure, public health services, undergraduate medical, dental and pharmaceutical education, and supervision of the regional physicians' chamber, the regional physicians' associations and the sickness funds operating in the *Land*. In most *Land*er, responsibility for community health services is devolved to local governments. Physicians and dentists treating patients in the statutory health insurance scheme are organised in regional physician/dentist associations. The interests of hospitals are represented by the German Hospital Organisation. Professional 'chambers' for physicians, dentists, pharmacists, veterinarians, and psychologists providing psychotherapy at the *Land* level are responsible for secondary training, accreditation, continuing education, etc.

The Federal bodies have taken on increasing responsibility for reforming health care since the 1980s. Cost containment goals (e.g. controlling services included in SHI benefits) have led to increased state supervision of decisions by SHI payers and providers (rather than increased centralisation of decision-making powers). There is a relatively strong degree of decentralised and autonomous decision-making in the system, particularly in terms of the non-profit corporate purchasers and providers who operate SHI and other statutory insurance schemes (Busse *et al.*, 2004).

#### Finance and Resource Allocation

The German health care system is predominantly financed by social health insurance and general taxes. Other sources of finance include private health insurance and out-of-pocket co-payments. All citizens are now required to purchase statutory or private health insurance. Health care is delivered by a mix of public and private hospitals and by private office-based care providers.



## Individuals

### Resource Contribution Mechanisms

#### Tax (9 per cent of total health resources)

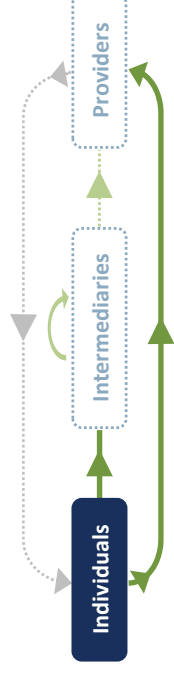
- Tax contributions account for 9 per cent of total health care expenditure.
- Investment costs in the acute hospital sector are financed from state and federal taxes. Taxes are also used to finance medical education, research and free government health care for sector-specific government schemes (4 per cent of the population, e.g. military, policy, immigrants seeking asylum) (van Ginneken *et al.*, 2009).
- Since 2004, sickness funds receive a fixed amount from the federal budget for a range of benefits (e.g. maternity benefits, in-vitro fertilisation, etc.). The tobacco tax was increased to facilitate the increased spending. The federal transfers are fixed and are independent of actual utilisation of benefits or of actual tobacco tax revenue (Busse *et al.*, 2004).
- A subsidy to contribute to the cost of children's insurance is allocated to the social health insurance fund.

#### Statutory health insurance (67.8 per cent of total health resources)

- SHI is the major source of health care financing. Social health insurance funds include general regional funds (37 per cent of all insured members), substitute funds (33 per cent), company-based sickness funds (21 per cent) and guild funds (6 per cent). There were approximately 200 sickness funds in 2009 (Schang, 2009).
- SHI membership is mandatory for employees whose gross income does not exceed a specified level (less than €50,000 per annum in 2009), covering approximately 85 per cent of the population in 2007 (van Ginneken *et al.*, 2009).
- Since 2009, a uniform contribution rate of 14.9 per cent of contributory income has been applied across all sickness funds. Contributions are shared between employees (7.9 per cent rate) and employers (7 per cent). Dependents (children and non-employed spouses) are insured at no extra cost. From 2011 reforms aimed at separating increasing health care costs from labour costs will be initiated: the employer's contribution to SHI will be capped at 7 per cent. Further increases in contribution rates will be borne by employees only (Zander *et al.*, 2009).
- The contributions across all sickness funds are pooled in a centralised 'Health Fund' together with a government subsidy (€4bn in 2009) intended to cover the cost of children's insurance.
- For individuals with low earnings (below a specified level), low or no employee contributions are required. The Federal Agency for Employment pays 100 per cent of the contribution rate to the sickness funds on behalf of the unemployed. The retirement funds also pay the employer contribution rate and pensioners pay contributions from their pensions.
- Sickness funds may levy a surcharge (e.g. income-dependent contribution or a flat rate) if unable to cover costs with the funds allocated to it. The maximum surcharge is 1 per cent of contributory income. Insured members have a right to cancel their membership and join a new fund within 2 months of a surcharge being introduced. There are no surcharges for dependents. For social security/basic welfare recipients, the surcharges are paid by local social services departments.
- Sickness funds may also offer a refund where costs fall below the resources allocated to it.
- Additional contributions to health care financing from statutory insurance schemes include statutory retirement insurance (1.7 per cent mainly for medical rehabilitation), statutory work-related accident insurance (1.7 per cent) and statutory long-term care insurance (7 per cent).

#### Out-of-pocket payments (13.1 per cent of total health resources)

- Out-of-pocket payments are required for co-payments for benefits covered by the insurance scheme (e.g. ambulatory medical treatment, drugs, inpatient days in hospital, rehabilitative care facilities, ambulance, physician charges) and for charges for benefits not covered by the scheme.



### Private health insurance (9.3 per cent of total health resources)

- Since 2009, it is mandatory for all citizens to take out health insurance (social or private). Not having health insurance is regarded as an administrative offence.
- People with full private health insurance cover include public employees (teachers, university professors, employees in ministries, etc.) who are excluded from SHI as they are reimbursed by the Government for at least 50 per cent of private health care bills and take out private insurance to cover the balance. Self-employed people are also excluded from SHI (unless they were previously a member). Employed people whose income is above the SHI threshold can opt out of SHI.
- Approximately 10 per cent of the population had full private cover in 2007 (5 per cent civil servants) (van Ginneken *et al.*, 2009).
- Separate premiums have to be paid for spouses and children so that private health insurance is attractive to single people or double-income couples.
- Private insurers must offer a basic premium tariff, uniform across all private insurers and across all applicants. Private insurers are not permitted to refuse applicants, or to charge risk-related tariffs, to anyone choosing the basic premium. The basic premium tariff is available to insured people aged 55 years and older, persons with special needs and new applicants. Private insurers have agreed to pool their risks with regard to those taking the basic premium, creating a small-scale risk compensation scheme (van Ginneken *et al.*, 2009).
- Supplementary private health insurance covers extra services (e.g. two-bed hospital rooms, treatment by the head-of-service).
- Complementary private health insurance covers co-payments.
- The SHI and private health insurance systems are separate. People who were formerly privately insured are not permitted to return to a sickness fund (unless they become an employee with an income below the specified threshold).

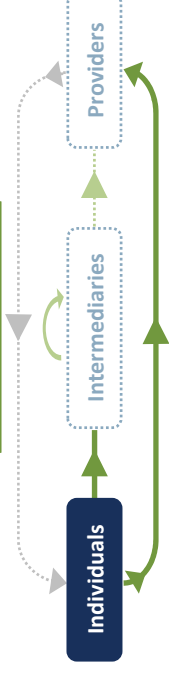
### Implications for Incentives and Health Principles

#### Incentives

- Mandatory health insurance: The number of uninsured people has been increasing (e.g. more than 200,000 in 2006), particularly as it was made more difficult for people to rejoin or to join SHI as they get older and face higher premiums in the private insurance sector. The formal obligation on all citizens to take out health insurance aims to reduce the number of uninsured people. Those who were last insured by a sickness fund are required to return to the sickness fund. Those who were last insured by private health insurance are required to take out private health insurance. Those never previously insured are required to take out the most appropriate type of insurance.
- To increase solidarity within the social health insurance system, conditions for opting out are more restrictive. Previously, individuals could opt out of a sickness fund once their income exceeded the threshold. With the recent reforms, the opt-out threshold now has to be exceeded for three years in a row. This makes it more difficult for high earners to opt out of SHI (van Ginneken *et al.*, 2009).

#### Equity

- Financing health care: Data from the late 1980s indicates that total contributions were regressive (i.e. resource contributions fall as a proportion of income as income rises), mainly driven by regressive social insurance contributions where richer groups were allowed to opt out (Wagstaff *et al.*, 1999). Increases in the flow of tax resources into the Health Fund will broaden the income base of the SHI and is expected to increase progressivity in contributions (Ognyanova *et al.*, 2009).
- Mandatory insurance: Although the number of uninsured has declined since the introduction of mandatory insurance, it is estimated that one in four people are still not insured, the basic premium may be unaffordable to low income groups (van Ginneken *et al.*, 2009).
- Most people are now permitted to choose a sickness fund (previously most people were assigned to a sickness fund on the basis of geographical/job characteristics). Switching from one fund to another is permitted but the insured must stay with one fund for a minimum of 18 months. A decision to leave the SHI system in favour of private health insurance cannot be reversed.



### Sustainability

- The recent health financing reforms (i.e. Health Fund and other changes) were motivated by increasing financial pressure (increasing health care expenditure and falling revenues). Revenue from contributions increased slower than GDP and health expenditure leading to repeated deficits requiring the sickness funds to increase their contribution rates (e.g. from 13.5 per cent of gross earnings in 2001 to 14.3 per cent in 2003). Factors contributing to the shrinking income base of sickness funds included: decreasing share of social insurance relevant part of the wage, increasing share of pensioners (pensions are approximately 48 per cent of gross wages), high unemployment and opt-outs (Busse *et al.*, 2004; Ognyanova *et al.*, 2009). Self-employed, higher-earning, healthier and younger people, single people and double-income earners all have incentives to opt out of social health insurance and take out private health insurance instead (Ognyanova *et al.*, 2009). Rising contribution rates can in turn increase unemployment, leading to further falls in the contribution base.
- The government subsidy to the Health Fund to cover the cost of children's health insurance does not yet correspond to the overall costs of insurance cover for children. From 2010 onwards the government subsidy is to increase by €1.5bn per year until it reaches €14bn. The increase in government subsidy is intended to lead to a reduction in the contribution rate (Ognyanova *et al.*, 2009).
- Sickness funds were opposed to the establishment of the new Health Fund, claiming problems of increased bureaucracy. Initially, sickness funds continued to collect contributions from the employers and from there transferred the funds to the Health Fund. Potential administrative savings from employers transferring resources direct to one single collection point were not achieved (Ognyanova *et al.*, 2009). The collection of surcharges (and the requirement to ensure the surcharge does not exceed 1 per cent of income) is expected to increase administrative costs (Ognyanova *et al.*, 2009).
- Out-of-pocket payments have been rising as a share of total health expenditure as co-payments have increased.

### Transparency and Accountability

- The health system has a decentralised structure but the most prominent feature is the delegation of state power to corporate actors (i.e. purchasers and providers) (Busse *et al.*, 2004).
- The central idea behind the new Health Fund was to separate contributions to health insurance (income-related contributions) from the allocations to the health insurers (risk-based allocations). 'A fund structured in such a way is intended to offer more transparency and competition among insurers, as well as less bureaucracy' (Ognyanova *et al.*, 2009; 2).





## Intermediaries

### Pooling Resources

- The contributions across all sickness funds are pooled in the centralised Health Fund together with the government subsidy. To equalise risk across sickness funds, a risk structure compensation scheme (RSC) is in place. Sickness funds receive a uniform flat rate from the Health Fund in respect of each insured member. This rate is adjusted (increased or decreased) according to the risk profile of the individual. Factors taken into account in the risk adjustment process include age, sex and disability. In 2009, the RSC was expanded to take morbidity into account. Where an insured member is suffering from a disease included in a list of 80 diseases (split by severity, totalling 106 hierarchical morbidity groups), additional payments are allocated to the sickness fund. Almost 50 per cent of the Health Fund is redistributed according to morbidity-based categories (Schang, 2009).

### Purchaser-Provider Split

#### Direct provision?

<b>Non-Acute:</b>	Under SHI, purchasers are represented by the sickness funds and their associations, and providers are represented by the regional physician and dental associations (affiliated with the SHI scheme). Collective contracting is the dominant form of purchasing in SHI ambulatory and long-term care. Regional physician associations negotiate collective contracts with the sickness funds that operate in their region for ambulatory care.
<b>Acute:</b>	Hospitals contract individually with the sickness funds. All sickness funds with more than 5 per cent market share in a particular hospital negotiate the contract with that hospital.

#### Pharmacy:

Non-hospital based pharmacies are privately owned.

#### Payment to Providers

##### Primary:

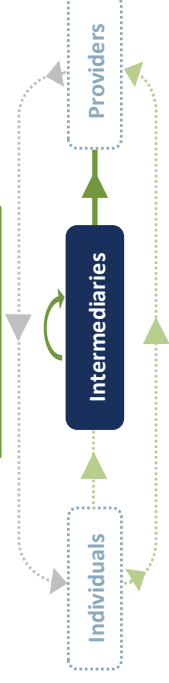
Office-based physician services are paid on a fee-for-service basis. Sickness funds make total payments to the physicians associations for the payment of all SHI-affiliated doctors (rather than paying doctors directly). Per capita grants are paid to the regional associations based on the population of insured people in the region. Physicians associations distribute the total payments among their members according to the Uniform Value Scale. The Uniform Value Scale outlines the relative weights for reimbursement of all procedures provided by ambulatory care. Each service listed on the scale is allocated a number of points. At the end of each quarter, every office-based physician invoices the physicians association for the total number of service points delivered. Physicians received monthly payments based on previous figures. Actual reimbursement depends on: the total budget negotiated with the sickness funds divided by the total number of delivered and reimbursable points. Certain preconditions must be met before claiming reimbursement (e.g. combinations of procedures). The monetary value of each point is not predicted as it depends on the total number of points. The Remuneration Distribution Scale regulates the minimum/maximum values that points for different specialities can take on to adjust for large variations between specialities. From 2007, physicians associations negotiate morbidity-oriented service volumes with the sickness funds, so that higher morbidity (probably in the previous year) could increase total remuneration and therefore the money available per speciality and physician.

##### Acute:

Hospitals receive funding for capital investments from federal and state taxes. Running costs are provided by sickness funds and private health insurers. Where possible the individual hospital agrees in advance an annual budget with the *Lander* associations/representatives of the sickness funds. Hospital recurrent costs are financed using a prospective payments method (relatively recent development). The Australian scheme for paying for hospital services on the basis of diagnosis-related groups has been modified to suit the German system. This replaces the older two-tier system of *per diem* and per case rates. Physicians and other health professionals working in hospitals or nursing care/rehabilitation institutions are salaried employees.

##### Long-term Care:

Payment is on a fee-for-service basis for non-institutional care and on a *per diem* basis for institutional care.

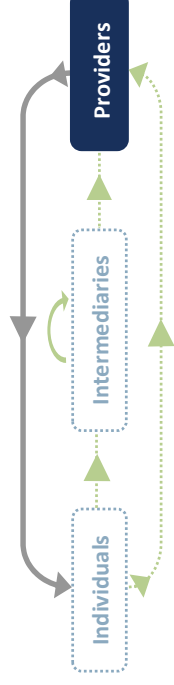


**Other primary:** Payments to private physicians and dentists are based on fee-for-service and the tariffs apply to ambulatory as well as inpatient care (and to patients paying out-of-pocket or via private health insurance). The tariffs are determined by the Federal Ministry of Health and Social Security.

**Implications for Incentives and Health Principles**

**Incentives**

- Sickness funds no longer receive additional payments in the risk-compensation scheme for insured members who participate in a disease management programme (see Case Study 2.12). Instead, payments are adjusted to take morbidity into account. This removes the incentive to sickness funds to encourage enrolment in disease management programmes. The cost effectiveness of these programmes is now a more important factor to the sickness funds (Blumel *et al.*, 2009).
- Hospitals are required to run internal management programmes and to negotiate contracts with sickness funds on quality assurance measures.
- Providers must fulfil specific certification requirements to offer special services (e.g. invasive procedures, medical imaging) (approximately 30 per cent of services listed on the Uniform Value Scale). Appropriate qualifications are required, as well as evidence of sufficient experience (e.g. minimum number of services in the preceding year such as 200 colonoscopies).



## Providers

### Health Basket Dimensions

#### Depth (what is covered by public funding)

- Provider associations (e.g. physician and dentist associations) are obliged to meet the health needs of the population, and guarantee provision of state-wide services in all medical specialties.
- Benefits included in SHI are outlined in generic terms in the Social Code Book and include: prevention and screening of disease, health promotion at the workplace, treatment of disease (ambulatory medical care, dental care, drugs, allied health care, medical devices, inpatient/hospital care, nursing care at home, some rehabilitative care), emergency and rescue care, patient transport for specified conditions, patient information. Employed members are also entitled to sick pay. Glasses, lifestyle medications and all over-the-counter medications are excluded. The SCB outlines in detail which preventive and screening services are provided. The Federal Joint Committee has more freedom to define the benefits package for curative diagnostic and therapeutic procedures. All procedures provided by ambulatory care are listed in the Uniform Value Scale (outlined earlier) which details their relative weights for reimbursement. There is no 'positive list' of SHI-reimbursable drugs, but there are two 'negative' lists indicating excluded prescription drugs.
- Long-term care is covered by the separate long-term care insurance scheme.

#### Breadth (who is covered by publicly funding)

- Services covered by SHI contracts are accessible to all fund members although permission is required for preventive spa treatments, rehabilitative services and short-term nursing care at home.

#### Height (is there cost-sharing)

- Co-payments apply to a range of services provided under the SHI: inpatient care, pharmaceuticals, physician visits. Inpatient charges are €10 per day for the first 28 days in a year. User charges for physician visits were introduced in 2004. The charge is €10 for a visit to a GP or a specialist in ambulatory care. The payment is valid for 3 months provided that any additional visits are referred visits (if not referred, an additional €10 is charged in the same quarter).
- User fees are paid up to a ceiling of no more than 2 per cent of gross income (or 1 per cent for chronically ill or for those living on social subsidies). Exemptions from user fees are granted to children under the age of 18, all preventive medical check-ups and prevention/check-ups during pregnancy. Income tax relief is granted for out-of-pocket health care payments above a specified threshold per year.
- Long-term care beneficiaries can also receive monetary benefits (depending on level of dependency) for professional nursing care at home or in nursing homes.

### Health Care Delivery Issues

#### Waiting lists

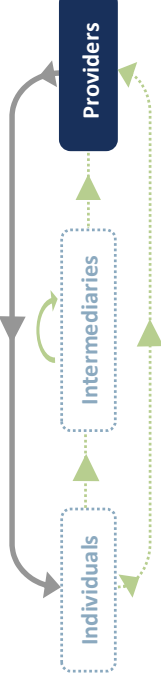
- There are no formal requirements to document waiting lists, with the exception of waiting lists for transplant services. Data on waiting lists are limited.

#### Patient choice

- Patients have free choice of ambulatory physicians, psychotherapists, dentists, pharmacists and nursing care providers.

#### Primary/secondary care integration

- Family practitioners are not gatekeepers in the system but GP gatekeeper contracts are increasingly being taken up by insured. All sickness funds are required to offer their members the option of family physician centred care. With this contract the patient agrees to always see their GP first before contacting any kind of specialist. The GP user charge is waived if the patient signs up for the GP contract. The physician receives additional payments/registration fees if they enrol patients in this model.
- Office-based physicians are accredited to treat ambulatory patients. A small proportion of other physicians can be accredited to treat ambulatory patients (e.g. heads of



hospital departments who are allowed to offer specific services or to treat patients at specific times). Approximately 5 per cent of office-based physicians have a right to treat patients inside a hospital. All others transfer patients to hospital physicians for inpatient treatment and receive them back after discharge. Most post-surgical care is carried out by office-based physicians. These physicians also provide a large part of urgent care during regular practice hours or during after-hour services in their practice. Acute hospitals provide outpatient emergency care while only university hospitals have formal outpatient facilities. The scope of non-university hospitals to provide ambulatory care is increasing. Hospitals are now permitted to treat patients with diseases requiring highly specialised treatment on an ongoing basis.

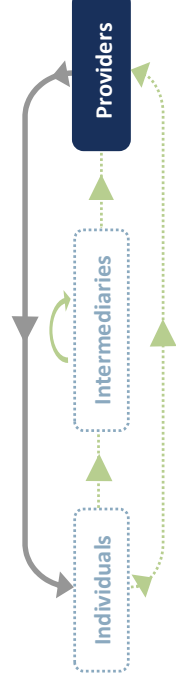
**Public/private interaction**

- Privatisation is an important feature of the German health care system. All office-based ambulatory care, dentistry and pharmaceutical care is delivered by private providers.
- In other sectors, private providers (for-profit and not-for-profit) operate alongside public providers. There is a mix of public (typically owned by local governments), not-for-profit and for-profit hospitals. The number of for-profit hospitals is increasing. However, most hospitals are permitted to treat SHI patients and regulated by the same set of rules, regardless of ownership.
- Sickness funds are private in formal ownership, but public in terms of responsibilities. A switch to private health insurance is not regarded as a political statement (e.g. for some it is the only option available) (Busse *et al.*, 2004).

**Implications for Incentives and Health Principles**

**Incentives**

- Physician and dentist associations have a monopoly over ambulatory care. Other bodies/providers (e.g. hospitals, sickness funds) are not permitted to offer ambulatory care with some exceptions.
- Ambulatory surgery is expected to expand. For 150 diagnoses, ambulatory surgery is now obligatory (unless a physician explicitly argues for inpatient care). It is estimated that 1/3 of operations may be shifted to outpatient care (Busse *et al.*, 2004).
- The SHI Modernisation Act (2004) removed barriers to setting up integrated care models. Integrated care contracts negotiated by sickness funds have to involve different categories of providers (within or across a sector) (e.g. family physicians and long-term care providers). Disease Management Programmes (DMPs) are offered by the sickness funds and by 2008, there were approximately 14,000 DMPs across Germany covering breast cancer, diabetes type I and II and coronary heart disease. It has been estimated that 65–70 per cent of those with type 2 diabetes are registered with a DMP. This seemingly large number of programmes is deceptive however, as their content and organisational structure are very similar. DMPs provide considerable financial incentives to service providers, as providers receive reimbursement for disease-specific education programmes for registered patients. They also receive additional compensation for the registration of an insured person into a DMP and for the regular production of standardised DMP documentation.
- Pharmaceuticals: The German market is characterised by the absence of direct regulation of ex-factory prices, even for reimbursed products. On the other hand, distribution margins are regulated and the listed retail price of a reimbursed product must be the same for the whole German territory. Since 2000, physicians are informed about the average prescribing behaviour in their region. Regional physicians' associations and associations of sickness funds are required to set pharmaceutical budgets and establish volume targets for individual practices. Physicians who exceed the target by 25 per cent are asked to justify the over-prescription and may have to pay back the difference between the over-prescribed amount and 115 per cent of the target to the respective sickness fund. Up to August 2002, pharmacists were allowed to substitute for prescribed preparations only if the physician explicitly allowed or asked for it. The Pharmaceutical Expenditure Limitation Act (February 2002) obliged pharmacists to substitute lower-priced preparations unless the physician explicitly opposed it. Germany first introduced reference pricing in 1989, and since 2004, all drugs (patented as well as generic) have been subject to reference prices unless they can clearly demonstrate added value. Reference prices mean that sickness funds only reimburse pharmacies up to a predefined ceiling and patients pay the difference between the reference price and the market price. The reference price cannot be higher than the



highest price in the lowest third of the market. In 2005, the reference price scheme included products accounting for 60 per cent of the German market. Very few drugs now exceed the reference price. Data show an increasing trend of generic prescribing by physicians in the 1990s but this has since decreased.

#### **Equity**

- Equity in delivery: Using data from 2001, van Doorslaer *et al.* (2004) found that the probability of visiting a GP was statistically significantly greater for the poor ( $p < 0.05$ ), controlling for health status. The use of specialist outpatient care was significantly pro-rich ( $p < 0.05$ ) while inpatient hospital utilisation was not found to be significantly biased after controlling for health status and other factors.

- The introduction of user fees for physician visits in 2004 led to a reduction in physician visits. The deterrent effect was observed to be greater amongst low-income groups, individuals with low health status and commentators note that necessary as well as unnecessary visits may have been affected (Hesse *et al.*, 2005).

#### **Sustainability**

- Factors contributing to the ongoing trend towards privatisation include: lack of public capital, more expensive and inflexible employment conditions in the public than in the private sector, more expensive retirement insurance for public sector employees.

#### **Universal cover**

- With mandatory insurance, all citizens are required to have insurance cover for at least a minimum package of health care.

Sources: Wagstaff *et al.*, 1999; Busse *et al.*, 2004; van Doorslaer *et al.*, 2004; Hesse *et al.*, 2005; Blumel *et al.*, 2009; CIA, 2009; Federal Statistical Office, 2009; OECD, 2009a, b; Ognyanova *et al.*, 2009; Schang, 2009; van Ginneken *et al.*, 2009; Wagstaff, 2009; Zander *et al.*, 2009

## Netherlands

### Health System Summary

#### Key Indicators

Population:	16.7m
Ratio of population aged 65+ to the total population:	15 per cent
Ratio of population aged 85+ to the total population:	1.7 per cent
GDP per capita:	US\$PPP 40,400 (2008 est.)
Total expenditure on health:	9.3 per cent of GDP (2006 est.)
Life expectancy at birth:	79.4 years
Infant mortality:	4.73 deaths per 1,000 live births

#### Stated Policy Priorities

One of the principal objectives of the Ministry of Health, Welfare and Sport is to guarantee access to high quality health care facilities and services to the whole population. The current reform aims to improve quality, efficiency and affordability of health care, while maintaining solidarity between the old and the young, the sick and the healthy, and ensuring universal access.

#### Governance Structure

The Ministry of Health, Welfare and Sport is responsible for safeguarding and controlling the implementation of regulations, and the performance of the health care sector, while the organisation and provision of health care has been delegated to the private market (with managed competition). The Ministry of Health, Welfare and Sport sets health policy and has joint responsibility with local authorities for public health care. Key national level organisations include: the Dutch Health Care Authority (supervises the market behaviour of insurers), the Health Care Insurance Board (administers the risk equalisation scheme for health insurance and advises government on the basic health insurance package), the Health Council (advises government on state of the art in medicine, public health and environmental protection), the Council for Public Health and Health Care, Medicines Evaluation Board, Health Care Inspectorate, etc. The purchase of health insurance, from private health insurers, is compulsory and in 2008 there were 32 insurers in the system. At the municipal level, there are municipal health services, responsible for disease prevention and health promotion and implementation of the Social Support Act (e.g. provision of home care services etc.).

#### Finance and Resource Allocation

Health services are mainly financed by income-related insurance contributions and private health insurance premiums, with some service funded by taxes and out-of-pocket payments. Most acute care facilities are private not-for-profit institutions and the majority of physicians are self-employed practitioners (paid via capitation and capped fee-for-service). Most health care services are contracted from these providers by health insurers on behalf of their subscribers. All individuals have access to long-term care insurance and all are required to purchase private health insurance to cover basic health services (primary, hospital care, pharmaceuticals). The majority of the population also hold complementary private health insurance to meet the costs of services not covered under the mandatory health insurance schemes.

## Individuals

### Resource Contribution Mechanisms

#### Tax (14 per cent of total health resources)

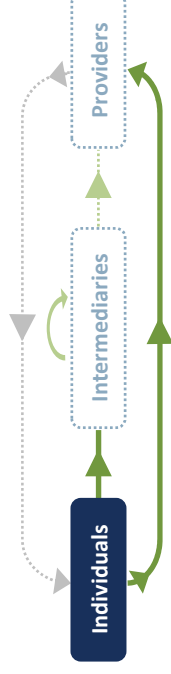
- Taxes (national, provincial and municipal) provide funding for training, health promotion and subsidisation of the statutory health insurance scheme. This subsidisation includes payment of the compulsory health insurance premiums for those under the age of 18, health care allowances, compensation for disability and grants to the Exceptional Medical Expenses Fund. Health care allowances are advance monthly payments towards the compulsory health insurance premiums for lower income groups (approximately 33 per cent of adults in 2006). The maximum eligible income for receiving a health care allowance was €32,502 for one-person households and €47,880 for families in 2009. The maximum allowance was €692 per year for one-person households and €1,461 for families in 2009.
- As noted below, the Government also bears the financial risk of people who default on their mandatory health insurance premiums (after a six month period of defaulting).

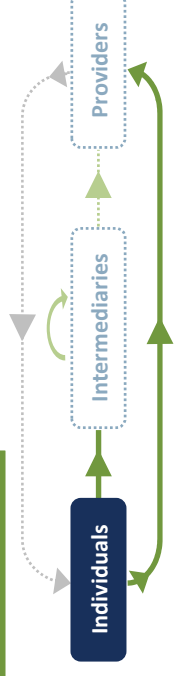
#### Mandatory health insurance (66 per cent of total health resources)

- Mandatory health insurance under the Health Insurance Act (ZVW) introduced in 2006 (covering ambulatory, hospital, outpatient, pharmaceuticals, maternity care, etc.), is purchased from private health insurers. Each legal resident in the Netherlands must purchase a basic health insurance plan (opt outs are not permitted) and there are minimum restrictions for what is included in the benefit package of the basic plan.
- This is part-financed from income-related contributions by the insured. Employers pay an income-related contribution for each employee and the contribution rate is set by the Government (6.9 per cent of income with a ceiling of €2,233 per year in 2009). Self-employed persons pay 4.8 per cent of their earnings (maximum ceiling of €1,554). The level of the income-related contribution is set with the aim that total income-related contributions account for approximately 50 per cent of total funding for basic health insurance, with the balance collected directly by insurers via nominal premiums. In 2008, the income-related contributions accounted for 56 per cent of ZVW funding.
- Two types of basic plan can be purchased. Under the 'in-kind' policy (40 per cent of policies in 2009), insurers provide care to their insured persons through health care providers employed/contracted by the insurer. The insured person does not receive a bill for the provided care (and pays the deductible to the insurer). If the insured person chooses a non-contracted provider, the health insurer may set the level of compensation for the insured person. Under the 'restitution' policy (25 per cent of policies in 2009), the insured is granted a free choice of provider. In principle, the insured pay the bill out-of-pocket and are then reimbursed by the health insurer (deducting the out-of-pocket deductible), but in practice expensive bills are paid directly by the insurer. It is also possible to purchase a combined in-kind/restitution policy.
- Mandatory national insurance contributions include contributions to fund (mainly long-term care) services under the Exceptional Medical Expenses Act (AWBZ). National insurance contributions were levied at 12.15 per cent on salaries in 2008 (maximum contribution of €3,838 per year).

#### Out-of-pocket payments (10 per cent of total health resources)

- The balance of funding for the ZVW insurance scheme comes from flat-rate premiums (40 per cent) paid by the insured direct to private health insurers and a compulsory deductible out-of-pocket payment (4 per cent). Insurers are permitted to set their own premium rates. The average annual premium varied from €933 to €1,150 in 2009. These premiums are subject to community rating (although the premiums can vary by type of plan).
- The compulsory out-of-pocket deductible is required by insured people over the age of 18 and is paid to the health insurer. GP, maternity care and dental care for those under the age of 22 are excluded from this deductible. The deductible in 2008 was €155 (although subscribers can opt for an insurance plan with a higher deductible where the voluntary additional deductible can vary between €100 and €500 per year). Certain groups of chronically ill people are partly compensated for the compulsory deductible. Individuals with high medicine use and those living in long-term care institutions each received a compensation payment of €47 in 2008 at the end of the year.
- Since 2009, health insurers may choose not to charge the deductible where patients go to preferred providers, or use preferred pharmaceuticals/medical aids, or follow





preventive programmes for diabetes, depression, cardiovascular diseases, COPD or overweight. Where a patient uses a drug with a price higher than the reference price, an out-of-pocket charge applies.

- Cost-sharing is also required in the AWBZ scheme for long-term care (the total amount of cost-sharing depends on the individual's income) and other services not covered by insurance.

#### **Complementary private health insurance (4 per cent of total health resources)**

- Complementary private health insurance provides cover for services not covered by AWBZ or ZVW (e.g. physiotherapy, dental care for adults) and is purchased by the majority of the population (approximately 92 per cent, Maarse, 2009). Complementary private health insurance is not permitted to cover the €155 compulsory deductible under ZVW.

#### **Other sources of financing (5 per cent of total health resources)**

##### **Implications for Incentives and Health Principles**

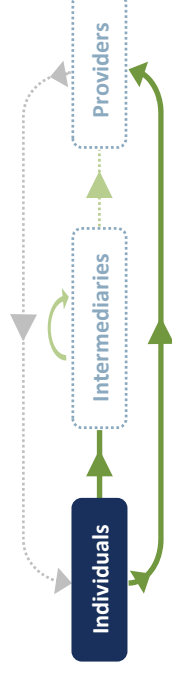
##### **Incentives**

- Open enrolment and community rating applies only to the compulsory insurance packages under ZVW, not to voluntary supplementary packages. There are concerns that health insurers could use the supplementary packages to risk select (e.g. deny an applicant a supplementary package to discourage their purchase of the basic plan) (Bartholomé *et al.*, 2006). For example, insurers are allowed to offer group discounts. However, there is nothing in particular that prevents a group with a low risk profile from forming to avail of a discount and persons with chronic conditions (e.g. diabetes) have formed groups to negotiate with insurers.
- Health insurers have only recently started to encourage their insured to go to preferred providers and to selectively contract with providers. In 2009, there is one insurance policy that explicitly practices selective contracting, and some insurers do not compensate 100 per cent of care that is provided by non-contracted providers. There is concern that insurers may use these new types of health plans to risk select. Plans where the insured accepts the restriction that they visit only the hospitals that have been contracted as a preferred provider, in return for a lower premium, may be more attractive to specific groups of people (e.g. young and healthy) and are therefore risk selecting (Maarse, 2009).

##### **Equity**

- Financing according to ability to pay? Prior to the 2006 financing reforms, total health care payments had a regressive distribution (with payments falling as a proportion of income as income rises) (Wagstaff *et al.*, 1999). In particular, social health insurance contributions were regressive, reflecting the fact that income earners above a specified threshold were excluded from the system. More than 60 per cent of the population were covered by statutory health insurance, and less than 40 per cent were covered by substitutive private health insurance, for general medical care (GP, hospital, etc.).
- A single system of insurance was recommended to increase solidarity in health insurance. A single system with market competition (proposed by the Dekker Committee, 1987) was recommended as a way of achieving solidarity and cost containment (Bartholomé *et al.*, 2006). The new ZVW system introduced in 2006 was similar to that originally proposed by the Dekker Committee although the recommendation to integrate statutory insurance with the Exceptional Medical Expenses Scheme was not taken up in the 2006 reform (Maarse, 2009).
- Commentators anticipated that compulsory health insurance would redistribute income away from young and healthy middle-income groups who previously held substitutive private health insurance, subsidising the poor and unhealthy by paying income-related premiums instead of previous lower risk-related premiums (den Exter *et al.*, 2004). The redistributive impact of the insurance reform has not yet been documented and the existence of group plans will make the analysis complicated (variations in discounts offered for groups) (Maarse, 2009).
- For those who were covered by statutory health insurance prior to 2006, the financial reforms may have restricted access to health care. The income-related (proportional) component has fallen (e.g. from 8 per cent to 6.9 per cent in 2009) while the flat-rate (regressive) component has increased (e.g. from €239-€455 in 2005 to €933-€1150 in





- 2009). There are concerns that the income-related cap on the flat-rate premium is not sufficient to ensure equity (Thomson *et al.*, 2009).
- Individuals who do not purchase a basic health insurance plan are considered to be uninsured (previously the Sickness Fund Scheme automatically covered each person for whom the scheme was intended). Approximately 1.4 per cent of individuals were uninsured in 2007 (Maarse, 2009). There are also concerns about those who default on the payment of the flat-rate insurance premium (insured individuals who fail to pay the premium for at least a six month period). An estimated 1.9 per cent of individuals had defaulted on their premium in 2007 (Maarse, 2009). Currently, insurers are not permitted to remove defaulters from their list of insured. Insurers bear the financial risk of defaulters for the first six months after which the Government takes over the financial risk.
- Individuals can choose any health insurer and any type of health plan although the majority choose plans without deductibles (Bartholomée *et al.*, 2006; Maarse, 2009).
- The extent to which consumers switch from one insurer to another was high in 2006 in the period immediately after the reform (21 per cent) but this has since reduced to less than 5 per cent (Schafer *et al.*, 2010). This is despite large variations in premiums and may be due to a high level of satisfaction, or high transaction costs of switching (Maarse, 2009).

#### **Sustainability**

- The competitive structure of the new mandatory health insurance system is expected to encourage insurers to negotiate favourable contracts with providers (controlling costs) (Bartholomée *et al.*, 2006). Health expenditure growth under the ZVW scheme has stabilised since 2006, and this is despite the fact that coverage of some health services was shifted from the AWBZ scheme to the ZVW scheme over the same period (Maarse, 2009). However, increased competition may have an upward effect on the volume of care provided. There is also a debate about vertical integration whereby insurers become part-owners of health care providers (e.g. insurers have started to invest in centres for primary care) (Maarse, 2009).
- It is estimated that €70m has been spent on advertising in the private health insurance market since the financial reforms were implemented (Bartholomée *et al.*, 2006).
- Administrative efficiency of health insurers has improved with the shift to the single health insurance system (Maarse, 2009).

#### **Transparency and Accountability**

- Large investments in information are being made to help consumers in their choice between private health insurers, health providers (e.g. waiting times, patient satisfaction, etc.) (Bartholomée *et al.*, 2006).



## Intermediaries

### Pooling Resources

- ZVW statutory health insurance contributions are pooled centrally in the Health Insurance Fund. These resources are allocated to the insurers via risk-adjusted capitation payments. The risk-adjusted capitation formula takes into account age, sex, socio-economic status, region, pharmaco-related cost groups and 13 diagnosis-related cost groups.

- Resources for the AWBZ fund are pooled centrally and payments are administered by the central administrative office.

### Purchaser-Provider Split

#### Direct provision?

**Primary:** Health care services are mainly contracted from private practitioners/institutions in the Netherlands. GPs are self-employed practitioners. Contract negotiations mainly take place between insurers and committees that represent GPs.

**Acute:** The majority of medical specialists (75 per cent) are independent professionals organised in partnerships working in a hospital, while others are salaried employees in a hospital (e.g. specialists employed by public teaching hospitals, psychiatric clinics and rehabilitation centres). There are 8 public university teaching hospitals and the rest are private not-for-profit hospitals.

**Long-Term Care:** Nursing homes and other providers (e.g. home helps) (funded by the AWBZ scheme) are contracted to provide long-term care.

### Payment to Providers

**Primary:** GPs are paid via capitation for each patient on their list and a fee per consultation. Additional payments can be negotiated for extra services, practice nurses, older patients, deprived location, etc. Maximum fees for GP services and practice nurses are the result of negotiations between the National Association of General Practitioners, Health Insurers Netherlands and the Ministry of Health, Welfare and Sport. After successful negotiations, the maximum fees are established by the Dutch Health Care Authority.

**Acute:** Insurers purchase services for their subscribers, contracting with hospitals and individual practitioners. Hospital budgets are determined by factors including patient volume, number of beds, number of specialists, etc. (fixed tariffs are set centrally for each factor). Health insurers are permitted to negotiate the prices for some hospital care. To facilitate these price negotiations, a new hospital casemix payment scheme has been implemented: payment related to activity using Diagnosis Treatment Combinations (DBC's). Since 2008, the independent medical specialists are paid through the DTC system and norms for hourly tariffs are set by the Dutch Health Care Authority. Other specialists are salaried employees (incomes range from €5,368-€9,851 per month).

**Pharmacy:** Prescribing rates by GPs are low, but pharmaceutical expenditure has been rising in recent years. A system of reference pricing is in place. Remuneration of pharmacists is based on a fixed dispensing fee (currently €6.10) and reimbursement for the costs of the pharmaceuticals.

**Mental Health:** Mental health care providers are paid on the same system as for curative hospital care (i.e. DBCs) for care covered by AWBZ.

**Long-term Care:** Long-term care providers are paid according to care intensity packages. The care intensity of each patient is independently assessed.



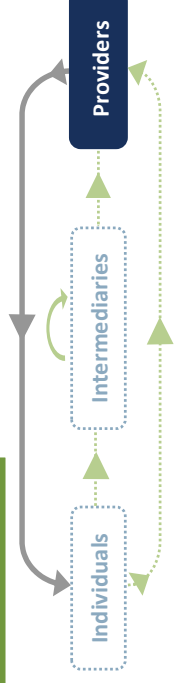
## Implications for Incentives and Health Principles

### Incentives

- Hospital payments are increasingly linked to performance. Hospitals that produce fewer inpatient days than agreed with health insurers are paid less, aimed at reducing waiting lists. The long-term aim is for all care to be reimbursed using DBCs.
- The scope for price negotiations between insurers and providers has been increasing over time. Initially, free negotiation was permitted on a range of DBCs (e.g. cataract surgery, diabetes care) that accounted for less than 10 per cent of total hospital expenditure, and this has since increased to approximately 34 per cent in 2009 (Maarse, 2007; Schafer *et al.*, 2010). The Dutch Health Care Authority sets the prices for the rest of the DBCs. The incremental approach is intended to enable actors to build up the necessary expertise and experience in their purchasing roles. Costs are expected to be controlled by allowing hospitals to compete on price for specific treatments, but there is debate on how much freedom in competition should be allowed (Klazinga, 2008). Maarse (2009) notes that it is too early to determine the impacts of the recent reforms in health insurance, partly because some of the impacts depend on other decisions that have yet to be made (e.g. the ability of insurers to negotiate prices with hospitals (and to control costs) depends on the scope of price competition allowed and this will ultimately have to be decided by the Government).
- Central planning of capital investments (except for specific top clinical services) has been replaced by allowing hospitals more discretion in these decisions. Hospitals are paid a mark-up price on each DTC to finance capital investments (Maarse, 2009).
- A key issue is how to incentivise insurers to seek efficiencies from health care providers rather than increase the premiums charged to subscribers. By contracting with providers, insurers are expected to improve the quality and efficiency of health care. To empower the insurers, they are no longer obliged to contract with each provider agent. However, selective contracting is not yet well established. Reasons for this include: monopolistic position of hospitals in some regions, lack of information on quality of care to inform insurers in their contracting decisions, concern with damaging market reputation as a result of selective contracting, difficult to steer insured patients to selected providers (insurers prefer to give positive incentives, e.g. forgoing the mandatory deductible if insured patients go to a preferred provider).

### Sustainability

- Insurers are permitted to decide where care covered by the basic plan is provided, and by whom (e.g. diabetes care provided by nurses rather than doctors). This is expected to improve efficiency in resource use (Bartholomé *et al.*, 2006).
- The cap on the fee-for-service paid to specialists in hospitals aims to cap expenditure. Specialists' revenues are now included in the hospital budget (although specialists continue to be paid fee-for-service) and if the service volume is lower than agreed, specialists receive less than planned.



## Providers

### Health Basket Dimensions

#### **Depth (what is covered by public funding)**

- Compulsory health insurance under the ZVW scheme provides cover for a basic benefits package, defined by law, including primary and secondary outpatient and inpatient care. In 2009, the basic benefits package included: medical card (including care provided by GPs, hospitals, medical specialists, midwives), hospital stay, dental care for children under the age of 22 (and some dental care for older people), medical aids and devices, pharmaceuticals, maternity care, transportation for sick people, allied health care, ambulatory mental care (after one year, inpatient mental care is considered to be long-term care and is financed by the AWBZ). For some treatments, there are exclusions from the basic package (e.g. a maximum number of reimbursable allied health care sessions, cosmetic plastic surgery without a medical indication is excluded, etc.)
- Statutory insurance under the AWBZ scheme provides cover for long-term care (e.g. accommodation, nursing care, domestic help, personal help) and long-term mental health care.

#### **Breadth (who is covered by publicly funding)**

- All residents are legally required to purchase a basic health insurance plan under the ZVW scheme (government subsidisation is provided for those under the age of 18 and low income groups).
- All residents are covered under the AWBZ scheme.

#### **Height (is there cost-sharing)**

- There is a mandatory deductible of €155 on the basic benefits package, but this does not include GP or antenatal/maternity care visits, or dental care for those under the age of 22. Children are exempt from cost sharing.
- Other cost-sharing applies to nursing home care, etc.

### Health Care Delivery Issues

#### **Legal status of providers**

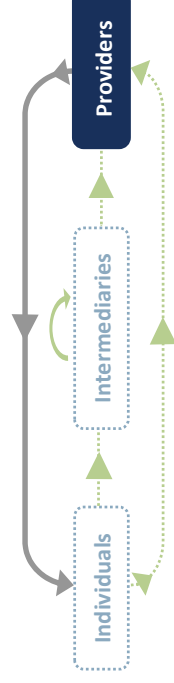
- The majority of hospitals are corporations and are not-for-profit institutions. There are a few pilots where hospitals are allowed to pay a part of the profit to shareholders.

#### **Waiting lists**

- Large waiting lists became a problem in the late 1990s. Measures to tackle the waiting lists included additional funding by the government, conditional on increases in hospital activity, publication of waiting lists to promote competition and supply increases (number of medical students). Waiting times for elective care are reported to have declined since the 2006 reforms.

#### **Patient choice**

- Purchase of private health insurance is mandatory but residents are free to choose amongst the alternative private health insurance companies.
- Patients are free to choose a family physician with whom to register although there may be some limitations in practice (e.g. a mutual agreement among GPs in the city of Utrecht whereby patients can only register with GPs practicing in their own district).
- Under the AWBZ scheme, patients can choose between receiving a personal care budget to purchase long-term care themselves, or receiving the care in kind. The Centre for Needs Assessment carries out the eligibility assessment for those with long-term illness or disabilities (assessments of needs for household work, medical aids, etc., are the responsibility of the municipalities).



### **Primary/secondary care integration**

- GPs act as gatekeepers in the system whereby patients must be referred to specialists or hospital by a GP.
- GPs can use hospitals for diagnostic procedures (blood tests, x-rays, etc.).
- Initiatives to improve integrated care across the system were introduced in the 1990s, mainly focusing on chronic patients with intermittent acute care needs (e.g. diabetes, cancer, etc. – see Case Study 2.13). One example of integrated care includes the Matador programme in the Maastricht area.

### **Implications for Incentives and Health Principles**

#### **Incentives**

- Primary/secondary integration: Commentators cite problems with a lack of financial incentives to encourage integrated care in the system. Local/national subsidies and grants fund most of the integrated care projects, and are on a temporary basis (den Exter *et al.*, 2004).

#### **Equity**

- Equity in delivery: Using data from 2000, van Doorslaer *et al.* (2004) found that GP utilisation was significantly pro-poor ( $p < 0.05$ ) after standardising for health care need although the probability of visiting a GP did not vary significantly across income after controlling for need. The probability of receiving specialist care was significantly pro-rich ( $p < 0.05$ ) but total utilisation was not significantly biased after standardisation for need. This bias in the probability is interesting given the gatekeeping role of GPs in the system (access to specialists is via GP referral). Commentators point to the differential public/private payments received by specialists prior to the 2006 reforms, with higher fees earned from private than from publicly funded patients. In addition, privately insured patients could gain direct access to specialists while publicly funded patients required GP referral (van Doorslaer *et al.*, 2000). The distribution of hospital inpatient care across income groups was not significantly biased after controlling for need, while the need-standardised distribution of dental care was significantly pro-rich (van Doorslaer *et al.*, 2004). Analysis in the post 2006 reforms is needed to examine the impacts on utilisation.

#### **Sustainability**

- Gatekeeping ensures a low GP referral rate with the majority of medical problems treated by GPs. An estimated 4 per cent of GP contacts are referred to specialists (Schafer *et al.*, 2010).

#### **Universal cover**

- All individuals are required to have cover for basic medical services under the ZVW, and all have access to long-term care services under the AWBZ.

Sources: van Doorslaer *et al.*, 2000; van Doorslaer *et al.*, (2004); den Exter *et al.*, 2004; Bartholomé *et al.*, 2006; Maarse, 2007; Klazinga, 2008; CIA, 2009; Maarse, 2009; OECD, 2009a; Wagstaff *et al.*, 2009; Thomson *et al.*, 2009; Wagstaff/Schafer *et al.*, 2010

## New Zealand

### Health System Summary

#### Key Indicators

Population:	4.2m
Ratio of population aged 65+ to the total population:	13 per cent
Ratio of population aged 85+ to the total population:	1.4 per cent
GDP per capita:	US\$PPP 28,000 (2008 est.)
Total expenditure on health:	9.3 per cent of GDP (2006 est.)
Life expectancy at birth:	80.36 years
Infant mortality:	4.92 deaths per 1,000 live births

#### Stated Policy Priorities

The New Zealand Health Strategy (2000) identifies seven fundamental principles for the health sector: acknowledging the special relationship between Maori and the Crown; good health and wellbeing for all New Zealanders; improvement in health status of the disadvantaged; collaborative health promotion and disease and injury prevention; timely and equitable access to health and disability services regardless of ability to pay; high-performing system; active involvement of consumers and communities.

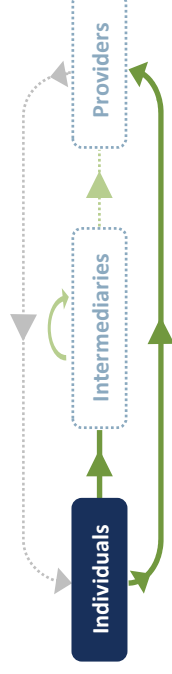
#### Governance Structure

The structures of the system have changed a number of times since the late 1980s. At the national level, the Ministry of Health is responsible for policy, monitoring, regulation and evaluation of the sector, and funding of health and disability services. Other institutions at the national level include the National Health Committee (advice on health priorities), Mental Health Commission (monitors implementation of the national mental health strategy), Health Research Council, etc. Health Benefits Limited is a stand-alone business unit within the Ministry of Health, responsible for paying subsidies to health professionals, including subsidies on pharmaceutical prescriptions, etc. The Ministry of Maori Development advises the Government on how to improve Maori health outcomes. The Pharmaceutical Management Agency of New Zealand (PHARMAC) manages the Pharmaceutical Schedule, making decisions on listing, subsidy levels and prescribing guidelines. A range of preventive programmes are provided at national, regional and local level (e.g. national breast screening programme, national cervical screening programme).

At the regional level, 20 District Health Boards (DHBs) (established in 2000) cover geographically defined populations. The DHBs are allocated resources to improve, promote and protect the health of the population, and may deliver services themselves or fund others to do so. Four shared services agencies (collaborations between DHBs) are responsible for health needs assessments, contract negotiation and contract monitoring. DHBs are also responsible for the provision of public health services including basic health protection services (e.g. water and food safety) and health promotion services (e.g. anti-smoking programmes).

#### Finance and Resource Allocation

The system is mainly financed from general taxation, followed by out-of-pocket payments and private health insurance. Public hospitals mainly treat conditions requiring short-term, intensive treatment. Long-stay treatment and care is shifting to private hospitals and nursing homes. Private hospitals concentrate mainly on elective surgery and long-term geriatric care. Most specialists are salaried employees in public hospitals but supplement their incomes with private practice. Most primary care providers are paid on a capitation basis for services provided to enrolled patients. Public inpatient and outpatient services are provided free of charge, and subsidies for primary care and prescriptions extend to all eligible individuals (i.e. residency/citizenship status).



## Individuals

### Resource Contribution Mechanisms

#### Tax (80 per cent of total health resources)

- National public taxes are the main source of health care financing (some environmental health funds are available from local taxes). Pay as you earn (PAYE) income taxes and a goods and services tax are the main types of taxation.
- Compulsory contributions to the Accident Compensation Corporation are collected from employers (premium based on total payroll, relative risk involved in type of work performed, work record), employees (premium based on total earnings collected as PAYE tax), vehicle registration fees, excise duty on petrol, government payment to cover people not earning an income and investment earnings from account reserves. The Accident Compensation Corporation provides compulsory social insurance cover for accident-related injuries and disabilities, covering medical and other costs.

#### Out-of-pocket payments (14 per cent of total health resources)

- Out-of-pocket payments are required mainly for primary care (e.g. pharmaceuticals, dental care, GP care) and all private care.

#### Private health insurance (5 per cent of total health resources)

- Private health insurance is purchased by less than 40 per cent of the population. Individuals insure against some/all of the gaps between government subsidy and charges levied by providers. Supplementary insurance for treatment in private hospitals and by private specialists is also available. The market is dominated by one insurance company (Southern Cross).

### Implications for Incentives and Health Principles

#### Transparency and Accountability

- Trends in resource allocations within the public health budget are difficult to trace because of the shifts in responsibility for funding and purchasing over time between central funding authorities and regional authorities.



## Intermediaries

### Pooling Resources

- Public taxes are centrally pooled by the Government and allocated to health in the annual budgetary process.
- Public health resources are allocated to 20 DHBs (established in 2000). Allocations to DHBs by the Ministry of Health were previously based on historical budgets (taking into account projected population changes, predicted price increases, net effect of technological changes and efficiency gains). Since 2003, allocations are based on the Population-based Funding Formula (PBFF). According to the PBFF, each DHB's share of health and disability funding is determined by its share of the projected New Zealand population (weighted according to the national average cost of the health and disability support services used by different demographic groups), an additional policy-based weighting for unmet need in recognition of the challenges DHBs face in reducing disparities between population groups, a rural adjustment and an adjustment for overseas visitors.
- Funds are also allocated by the Ministry of Health to national programmes.
- Funding packages announced by the Ministry of Health cover 3 years.

### Purchaser-Provider Split

#### Direct provision?

<i>Primary:</i>	GPs are private practitioners.
<i>Acute:</i>	Public hospitals are directly owned and administered by the DHBs. The majority of publicly-funded hospital services are provided in public hospitals. Approximately 6 per cent of non-urgent publicly-funded operations are purchased from private hospitals. Government policy introduced in 2009 aims to encourage the DHBs to engage with private providers in planning services and in developing longer term contracts (to improve the use of available hospital capacity, efficiency of service delivery and to reduce waiting times) (Ashton, 2009a). Private community-based facilities provide laboratory tests and diagnostic imaging (on referral from a primary care practitioner).
<i>Mental Health:</i>	Hospital and community mental health services are mainly publicly funded and provided by a mix of public and private providers. Most specialist services are provided by DHBs, with community residential and day services provided by non-governmental organisations (NGOs). NGOs are a major player in the delivery of mental health and addiction services, with about a third of all funding going to approximately 500 NGOs providing mental health services.
<i>Disability:</i>	The Ministry of Health purchases services directly for people with long-term physical, intellectual and/or sensory impairment requiring ongoing support (and who are generally under the age of 65).
<b>Payment to Providers</b>	
<i>Primary:</i>	DHBs allocate resources to Primary Health Care Organisations (PHOs) using capitation payments (adjusted for age, sex, ethnicity, community service card or high user service card status and deprivation). PHOs vary widely in size and structure, are not-for-profit and provide services either directly by employing staff or under contract with provider members. Although primary health care practitioners, such as GPs and allied health professionals, are encouraged to join PHOs, membership is voluntary. PHOs reimburse GPs on a capitation basis (adjusted for age, sex, ethnicity, community service card or high user service card status and deprivation). There are additional fee-for-service payments for the provision of immunisations and for Care Plus (which targets care of chronic conditions). User fees charged for GP services (in excess of the subsidy) are set according to local arrangements between DHBs and PHOs and are published on DHB websites. A new PHO Performance Management Program (PMP) introduces payment for performance against a small number of agreed performance indicators and targets, and was rolled out in 2007 (note that payments are to PHOs, not individual GPs – see Case Study 2.2).





<b>Acute:</b>	Allocations to the DHBs include funding for all services provided by the DHB including hospital services. Public hospitals receive an annual fixed operating budget to cover all operating expenses except major capital expenditure. Casemix funding was used between 1993 and 2000 but now only applies to inter-district flows. Most specialists are employed by public hospitals and are paid a salary. Most hospital specialists supplement their incomes with private practice. Private doctors providing services to hospitals are paid mainly on a fee-for-service basis.
<b>Pharmacy:</b>	DHBs allocate funds to PHARMAC which manages the funding of community pharmacists on behalf of the DHBs (and some hospital pharmacies). Not all community pharmaceuticals are fully subsidised and where prices exceed the subsidy, the pharmacists may recoup the difference from the patient.
<b>Other primary:</b>	DHBs reimburse dentists on a capitation basis for services provided to children under the age of 18.

### Implications for Incentives and Health Principles

#### Incentives

- A Ministerial Review Group has recently recommended the following structural reforms: transfer of planning and funding of services that are national services from the DHBs and the Ministry of Health to a new organisation, provisionally called the National Health Board (and still within the Ministry of Health). The National Health Board would monitor the DHBs (taking over this role from the Ministry of Health). The National Health Board would also consolidate strategic planning and funding of future capacity (IT, facilities, workforce). DHBs would be required to plan on a regional basis and establish governance and support to deliver the plans. A new government agency would be established to provide shared services to DHBs (reduce the cost of recruitment and other back office functions) (Tenbense, 2009). The New Zealand health system was restructured 4 times between late 1980s and 2001, each following a change of government (see below). Disruption from restructuring led to public and health sector fatigue. The government that came into power in 2008 promised no further structural change but prefers a more centralised and regionalised approach to health care than is currently in place. Even the political party that favours decentralisation was impatient, when in power, with the slow and uneven pace of change in the health sector and supported mechanisms to ensure inter-DHB collaboration in planning and service delivery (Tenbense, 2009). The proposed National Health Board has some similarities with the Health Funding Authority that existed from 1997-2000, responsible for purchasing all publicly funded health services, but the responsibilities of the proposed National Health Board are more limited than those of the Health Funding Authority. There is a risk of 'turf disputes' between the National Health Board and the DHBs, and between the National Health Board and the Ministry of Health.
- The policy to encourage DHBs to purchase more elective surgical services from private providers could increase the number of patients treated, reduce public hospital waiting times, improve utilisation of existing spare capacity in the system, encourage greater collaboration between the public and private sectors and reduce prices. However, there are risks of higher private sector costs relative to the public sector, high transactions costs associated with contracting out, incentives in favour of greater private activity by specialists (increasing pressure on the public sector workforce) (Ashton, 2009a).
- Primary Care Strategy (2001): More than 80 Primary Health Organisations PHOs have been established since their introduction in July 2002. PHOs are networks of primary health care providers including GPs, primary health care nurses and may include dietitians, psychologists, health promotion workers and others. PHOs are paid by capitation to provide services for their enrollees. Investment in primary care has resulted in reduced co-payments for GP consultations and pharmaceuticals and increased consultation rates. Ninety five per cent of the New Zealand population are enrolled in a PHO, with most general practices now part of a PHO.
- Primary Care Strategy (2001): The shift to capitation payments was intended to lead to greater flexibility in service provision across a range of providers but funding streams are fragmented and a large proportion of resources are still directed to GPs rather than other providers (e.g. nurses) (Ashton, 2008). However, there are signs that the role of nursing in primary care has increased particularly for the management of chronic diseases and care of vulnerable groups. There is greater choice for patients, greater acceptance by patients of nurses being the first point of contact rather than a doctor, and GP time has been freed up with more cost effective use of services (Ashton, 2009b).

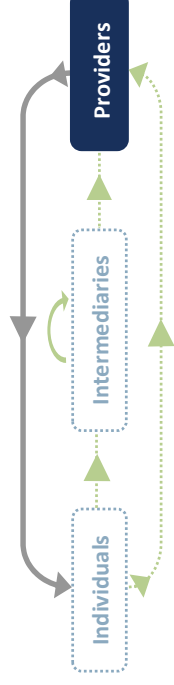


### Equity

- There was concern that the establishment of the 21 (now 20) DHBs in 2000 could lead to regional inequities (French *et al.*, 2001).
- The policy to increase use of private hospital utilisation may lead to easier, less costly patients being treated privately leaving more complex and costly cases for treatment by public hospitals, with possible negative equity implications (Ashton, 2009a).

### A note on the reform process (French *et al.*, 2001)

- The structure of the health system was changed 4 times between the late 1980s and 2001.
- **1980s:** Health services were regionalised in the 1980s. Area Health Boards were organised around at least one large district hospital and responsible for secondary/tertiary health care and public health services. The Area Health Boards were disbanded in July 1991 due to problems of conflict in the role of the Area Health Boards as they both purchased and provided services (blurred lines of responsibility between Area Health Boards, government, communities), fragmented funding and other issues.
- **1993 reforms:** Four regional health authorities (RHA) were established in 1993. Each RHA was given a budget to purchase all personal health and disability services (from public and private providers) for their regional populations. The Area Health Boards were converted into Crown Health Enterprises (commercial entities) to run hospitals, community and public health services.
- **1996 reforms:** The 1993 reforms did not achieve what was expected and the RHAs were abolished in 1997, moving away from a system based on competition to one based on collaboration. The 4 RHAs were administratively expensive for a small country. The effects of market competition were not possible as the government had to meet the budgetary shortfalls of the Crown Health Enterprises. The new Health Funding Authority took on the functions of the RHAs, contracting with providers to provide medical, hospital, public health, disability and other health services. The Crown Health Enterprises were converted into 23 companies, Hospital and Health Services, to run hospital, community and public health services, contracting for funds with the Health Funding Authority.
- **2000 reforms:** The market-oriented reforms were regarded as having failed (there was some success in constraining costs but waiting lists had grown, no real competition had emerged within the regional quasi markets, the private sector had not been stimulated to expand the range of services, greater consumer choice had not emerged). Regional governance was re-established in 2000. The 21 (now 20) DHBs replaced the Hospital and Health Services. The role of the Health Funding Authority was transferred to the DHBs and the Ministry of Health. The strict purchaser/provider split was ended. DHBs hold budgets for the services they provide. DHBs have up to 11 members (7 are elected by the local community, 4 are appointed by the Ministry of Health, and each board is to have at least 2 Maori members). DHBs are to co-operate with adjoining districts in delivering services (e.g. specialist services drawing patients from a wider region outside a single district).



## Providers

### Health Basket Dimensions

#### **Depth (what is covered by public funding)**

- Inpatient and outpatient (including day case) care is provided in public hospitals.
- Primary care is publicly subsidised.
- Pharmaceuticals listed on the Pharmaceutical Schedule are publicly subsidised. The New Zealand Pharmaceutical Schedule is a list of the approximately 3,000 prescription medicines and therapeutic products subsidised by the Government. The (national) Schedule is published three times a year and updated monthly by PHARMAC. Not all community pharmaceuticals are fully subsidised. Although PHARMAC endeavours to fully subsidise at least one community pharmaceutical in each therapeutic group and has contracts with some suppliers to maintain the price of a particular product, manufacturers are able to set their own price to pharmacies. When these prices exceed the subsidy, the pharmacist may recoup the difference from the patient.
- Hospital and community mental health services are publicly funded. Long-term care for older people in home and residential care is also subsidised (from resources allocated to DHBs).

#### **Breadth (who is covered by publicly funding)**

- All individuals with residency or citizenship status are eligible for publicly funded hospital outpatient and inpatient services.
- Subsidisation of primary care and prescriptions has now been extended to all those eligible for publicly funded health care services.
- Eligibility for long-term care subsidisation is determined on the basis of need (i.e. level of disability), although with adjustments for age and means.

#### **Height (is there cost-sharing)**

- Inpatient and outpatient (including day case) and community mental health care services are provided free of charge.
- Maternity services are provided free of charge (with the exception of some services, e.g. extra ultrasounds).
- Primary care (e.g. GP care) is publicly subsidised via the capitation payment to the PHO but out-of-pocket fees are still required.
- Prescriptions are free of charge (for most medicines) for 0-5 year olds, NZD0-2 where a high-use or prescriptions subsidy card is held, NZD3 per prescription for most adults (NZD 10-15 where prescribed by provider that does not have a service agreement with the Ministry of Health or a DHB or for non-eligible individuals or for non-subsidised drugs) (New Zealand Ministry of Health, 2010).

### Health Care Delivery Issues

#### **Legal status of providers**

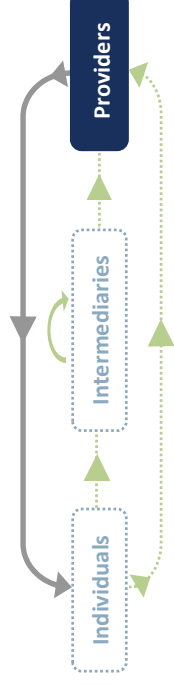
- Public hospitals are under the management of the District Health Boards. Hospitals are expected to fund repairs, maintenance and non-major capital development from their own funds.

#### **Waiting lists**

- A Waiting Times Fund provided additional funding to clear the backlog of patients waiting for elective surgery in public hospitals (1996-2000). In public hospitals, a booking system to prioritise patients according to clinical assessment criteria is applied for a number of high-volume, high cost procedures (e.g. cataract surgery, hip replacement).

#### **Patient choice**

- Patients are free to choose their GP.



### Primary/secondary care integration

- A number of initiatives have been set up to improve integration on a project basis. One initiative was to merge funding streams to allow purchasers to shift resources between different services but there is no evidence of shifts in funding from hospitals to primary care (French *et al.*, 2001). 'Care Plus' is a national programme, introduced in 2004, that funds primary care to provide two hours of practice nurse and/or GP time over 6 months to people who are considered to benefit from more intensive clinical input. The key feature of the Care Plus programme is the identification of people with chronic disease who require intensive case management (see Case Study 2.2). Once identified and enrolled, patients are entitled to reduced cost nurse or doctor visits, care planning with quarterly checks and self management support. The PHOs receive around 10 per cent extra funding to target 5 per cent of the enrolled population. The Frequent Adult Medical Admissions scheme, introduced in 2003 in Counties Manukau targets people who have been admitted to hospital more than twice in 12 months for a total of 5 or more days. The programme offers case management by practice nurses and GPs together with care co-ordinator nurses who are based in secondary care.

### Public/private interaction

- GPs have a gatekeeping role in the system. Individuals cannot access non-emergency public secondary/tertiary services without GP referral.

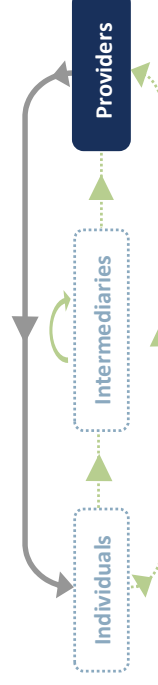
### Implications for Incentives and Health Principles

#### Incentives

- DHBs were established in 2001 to place responsibility of hospital and community-based health services within the same organisational structure. Proposals to develop an electronic health record system (via collaboration between seven DHBs) to replace old hospital-based information systems, are attributed to DHBs' frustration with inadequate information systems in the context of calls for better integration of care (Tenbensen *et al.*, 2009).

#### Equity

- Co-payments for inpatient and outpatient hospital treatment were introduced in the early 1990s, but were unpopular and removed by 1997 (French *et al.*, 2001).
- Equity in health care financing and delivery was a key issue for the New Zealand health sector, particularly for primary health care. Out-of-pocket payments have risen over time due to increasing user charges. While approximately half of the population were entitled to primary care subsidisation prior to 2001, the subsidy for adults covered only 33-40 per cent of the average GP charge (NZD15 subsidy on average charge of NZD37.5 – NZD45) and the majority of adults paid the full cost of GP services (Cumming *et al.*, 2009). Financial barriers to care were raised as a particular concern. Prior to 2001, approximately 21 per cent of those eligible for a community services card (granting access to subsidised care) did not hold one. Survey data indicated that 20 per cent of individuals were prevented from accessing primary care services when needed due to the patient charges (Cumming *et al.*, 2009). The new PHOs were intended to extend access and improve quality of care for low-income groups (French *et al.*, 2001).
- One component of the 2001 Primary Health Care Strategy was to switch from targeted to universal subsidies. Higher subsidies were rolled out in phases. At first, higher capitation rates were paid for PHOs with a deprived enrolled population, followed by higher rates for 0-17 and 65+ year age groups, followed by other age groups. By 2007, 95 per cent of the population were enrolled with a PHO and subsidies for GP consultations and pharmaceuticals have been extended to the whole population. Evidence indicates that fees have fallen, particularly for higher income people (previously not subsidised at all) and consultation rates have increased for all population groups, particularly in practices with high proportions of poorer patients (20 per cent increase) (Ashton, 2007).
- However, average reductions in fees have not been at the levels hoped for by the Government (Cumming *et al.*, 2009). As noted above, GPs retain the right to set their own level of co-payment so universal access to low cost care may not be sustained in the long term (CHSRP University of Auckland, 2006).
- Also, while the intention was to move away from targeted to universal subsidies, some primary care practices (those charging very low user fees) were subsidised at a higher rate than others during the transition phase. Prior to the 2001 Primary Health Care Strategy, subsidies were targeted at individuals and families (e.g. community service concession cards) while subsidies are now targeted on PHO populations. Low fee practices have typically served deprived groups in the population. Critics argued that wealthy people living in an area served by a low fee practice would benefit from higher subsidies than lower income people living in other areas. This may not have



been the case if GPs continued to charge different prices across their own practice to take into account unequal ability to pay (CHSRP University of Auckland, 2006).

#### **Sustainability**

- New funding was made available for the roll-out of PHOs. The government made public promises that the increases in public funding for primary care would be passed on in the form of lower patient user charges, despite the fact that it was agreed that GPs can retain control of their own fees. Over time there was concern that not enough of the increased funding was being passed on to patients via lower fees. It is now required that DHBs agree with their local PHOs about the degree to which new funding should result in reduced scheduled GP fees, about a fee review processes if funding does not result in the expected fee reductions, and about how much scheduled GP fees may rise each year without triggering a formal fees review (Cumming *et al.*, 2009). Commentators note that the Government has avoided the statutory regulation of fees that exists in other countries *'most likely because of a fear of the political furor that this would likely generate from the GP community'* (Cumming *et al.*, 2009; 7). It is also noted that practices are able to set their own fees and charge for other services (e.g. practice nurse services, repeat telephone prescriptions, longer/more complex consultations) (Cumming *et al.*, 2009). Finally, the lack of formal contract between PHOs and GP practices regarding fees may be perpetuating *'the notion that the government is subsidising private businesses rather than using capitation and other funding to contract for the delivery of a set of services at an agreed price to produce specific results in terms of health improvement'* (Cumming *et al.*, 2009; 13). There are also concerns that while fee reductions in recent years have been made possible because of increases in Government expenditure in primary care, the worsening economic outlook might limit the scope for further increases in public resources. The importance of identifying the impact of the primary care reforms (e.g. on service delivery, utilisation, inequalities, reduced costs of hospitalisations) is underlined (Cumming *et al.*, 2009).

#### **Universal cover**

- All New Zealand citizens (and all children aged 18 and under, work permit holders, etc.) are eligible for publicly funded health and disability services.

Sources: French *et al.*, 2001; CHSRP University of Auckland, 2006; Ashton, 2007; Ashton, 2008; CIA, 2009; Cumming *et al.*, 2009; OECD, 2009a; Ashton, 2009a, b; Tembense, 2009; New Zealand Ministry of Health, 2010

## Sweden

### Health System Summary

#### Key Indicators

Population:	9.1m
Ratio of population aged 65+ to the total population:	18 per cent
Ratio of population aged 85+ to the total population:	2.7 per cent
GDP per capita:	US\$PPP 38,100 (2008 est.)
Total expenditure on health:	9.2 per cent of GDP (2006 est.)
Life expectancy at birth:	80.86 years
Infant mortality:	2.75 deaths per 1,000 live births

#### Stated Policy Priorities

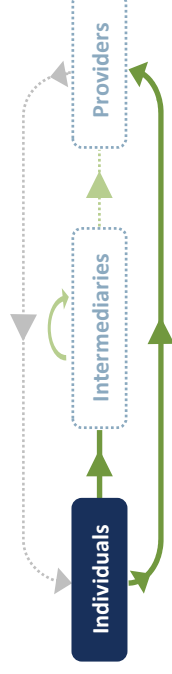
The primary objective for the Swedish health sector, as stated in policy, is to provide good health care, on equal terms, to all the population. Each county council is required to: 'offer good health and medical services to persons living within its boundaries' and to 'promote the health of all residents' (1982 Health and Medical Services Act). The municipalities are legally required to meet the social service and housing needs of the elderly and to support people with disabilities (Social Services Act 1980, Support and Service for Persons with Certain Functional Impairments Act 1993). Three principles underpin health care priorities and decisions (in order of importance): human dignity, need and solidarity, cost-effectiveness. National guidelines on who is to be regarded as having greater need than others are included in the Health and Medical Services Act.

#### Governance Structure

The health system has a decentralised structure. The national Ministry of Health and Social Affairs has overall responsibility for the health care sector (policy, legislation, etc.). The National Board of Health and Welfare supervises the county councils, ensuring that services are provided in accordance with the national government goals. Other key national bodies include: Medical Products Agency and the Pharmaceutical Benefits Board: responsible for approving and registering drugs, decisions on which drugs are to be included in the pharmaceutical benefits scheme, price of drugs; National Corporation of Swedish Pharmacies: a state monopoly that owns and operates all hospital and community pharmacies; Swedish Social Insurance Agency: administers the social insurance benefits (e.g. sickness insurance etc.). At the regional level, 21 county councils are responsible for the delivery of health care services. County councils are divided into two or more health districts. For highly specialised care and for research and medical training of doctors, county councils are organised into six medical care regions. At the local level, 290 municipalities have responsibility for care of elderly and people with disabilities.

#### Finance and Resource Allocation

Health services are mainly financed from local and national taxes, social insurance contributions and user charges. Most health care services are directly provided by the county councils although private provision is expanding. Primary care is provided at local health centres, family physician surgeries, private physicians and physiotherapists, district nurse clinics and clinics for child and maternity health care. District county hospitals (approximately 40) have four core specialties internal medicine, surgery, radiology and anaesthesiology. County hospitals (approximately one per county council) can treat almost all conditions. Complex/rare diseases and injuries requiring highly specialised care are treated in eight regional hospitals. All individuals have access to publicly funded health care services. Small user fees apply to most services but there are high cost protection measures and other exemptions.



## Individuals

### Resource Contribution Mechanisms

#### Tax (72 per cent of total health resources)

- Local tax is the main source of health care financing in Sweden. County councils and municipalities levy proportional income taxes on their respective populations. The average county proportional income tax rate is 10.76 per cent (2004), and the average municipal proportional income tax rate is 20.79 per cent (2004).
- State grants supplement the health care resources of county councils and municipalities (e.g. 5 per cent of county council revenue in 2003). The grants are financed from national income and indirect taxes.

#### Social insurance (13 per cent of total health resources)

- Mandatory social insurance contributions are used: to subsidise the cost of prescribed drugs and dental care; to cover the schemes that grant high-cost protection/exemption from out-of-pocket payments for health care; to cover income losses due to illness. Social insurance is mainly financed from employers' contributions at a rate of 11 per cent of employee gross wage (2004).

#### Out-of-pocket payments (15 per cent of total health resources)

- User fees are levied on prescription drugs, dental care, hospital and primary care.

#### Private health insurance (less than 1 per cent of total health resources)

- Less than 3 per cent of the population hold supplementary private health insurance although the market is growing.

### Implications for Incentives and Health Principles

#### Incentives

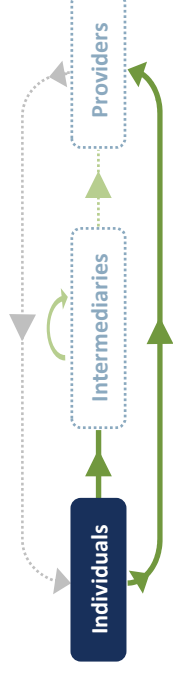
- There is no public subsidy to private health insurance. The main benefit of private health insurance is that it ensures quick access to a specialist. Avoiding waiting lists for elective treatment is another possible benefit.

#### Equity

- Financing health care according to ability to pay? Using data from 1990, Wagstaff *et al.*, (1999) found that total contributions were regressive (i.e. resource contributions fall as a proportion of income as income rises) due to the predominant mix of proportional local taxes and regressive out-of-pocket payments. Variation in local tax rates across most county councils is less than 0.5 per cent (Rae, 2005) and the degree of horizontal inequity (i.e. people on equal incomes paying unequal amounts) has been found to be relatively low (van Doorslaer *et al.*, 1999). User fees impose uneven payment burdens.

#### Sustainability

- Financing structure: The share of public expenditure in total health expenditure has fallen, and that of out-of-pocket payments has increased, since the 1908s. Over the period, utilisation of health services with higher proportions of cost sharing increased (e.g. drugs, dental care), while health services with lower proportions of cost sharing have decreased (e.g. inpatient care) (Glenngård *et al.*, 2005).
- Decentralisation of resource collection: Weaknesses of decentralisation can include financial waste through duplication of administrative structures and instability in funding in smaller counties (Rae, 2005).
- Future cost burden: A key concern for policymakers is the growing cost burden of the health sector (e.g. increasing elderly population). It is argued that the decentralised structure of revenue collection restricts options for expanding the revenue base for health care (e.g. re-allocate a central budget towards health away from education; widening the tax base) (Rae, 2005).



**Transparency and Accountability**

- Political accountability for health services is devolved to county councils and municipalities which suggests direct accountability to their local populations, with local control and visibility of what the local taxes are being used to finance in the health system.
- National level data on health-care expenditure and resource use patterns are limited, partly due to the decentralised structure of the system.





## Intermediaries

### Pooling Resources

#### National public resources

- National tax resources for health are pooled by the state and issued through grants to the county councils and municipalities. The state grants are adjusted to equalise opportunities to achieve similar standards in health care services across the counties and municipalities. The resource allocation formulas adjust for variations in income, health care need (sex, age, etc.) and costs of services (geographic factors).

#### Local public resources

- Local county council taxes are pooled at each council. Most county councils are divided into two or more districts which each have responsibility for hospital and primary care services in a specific area. Up to the late 1980s, allocation of resources based on historical expenditure patterns led to variations in resource availability and costs across districts. In response, many councils developed population-based models to allocate global budgets to districts but practical implementation has been slow.

### Purchaser-Provider Split

#### Direct provision?

**Primary:**

Most primary care centres are owned and operated by county councils. Health care services are mainly directly provided.

**Acute:**

All hospitals are owned by the national government.

**Pharmacy:**

All community pharmacies are owned by the national government.

#### Payment to Providers

**Primary:**

GPs are mainly salaried employees of the county councils. Some GPs also receive an additional capitation fee for each registered patient to increase their monthly income. However, in some urban county councils, up to 60 per cent of primary care physicians may be private practitioners. Private practitioners are reimbursed by the county council per consultation according to a fee schedule set by the national government. To enter into the contract, private practitioners must: not be employed by the county council; work full time in private practice; be less than 70 years of age. In practice, remuneration of GPs differs markedly between county councils, with all operating a different mix of capitation, salary and fee-for-service. In 2004, approximately 29 per cent of all outpatient physician consultations were conducted at private facilities, most of whom have a contract with a county council and are reimbursed with public funds for seeing patients. Policy changes in the 1990s granted patients greater freedom to select a health care provider, affecting the allocation of resources. Health care districts or county councils reimburse the provider (e.g. in a different county council) that is chosen by the patient.

**Acute:**

There is no single method of allocating funding to hospitals. Some county councils use global budgets, while others have adopted casemix-based funding (which may be used in conjunction with budgets or capitation payments). For services funded by the county councils, many councils introduced a purchaser-provider split in the early 1990s, moving away from budgets towards contracts and per-case payment methods (with cost-control measures). This was in response to long waiting lists and inefficient use of inputs. By the mid-1990s the focus shifted from contracts to co-operation between purchasers and providers (contracts were replaced with long-term agreements and goals). Cost control is now a central priority and health services in most county councils are now financed from budgets. A small group of county councils uses purchaser-provider models to pay for hospital services on a per-case basis, and others pay for primary care on a capitation basis. For highly specialised care, county councils co-operate in 6 medical care regions (with 8 regional hospitals). A regional hospital is owned and administered by the council in which it is located. Neighbouring county councils reimburse the administering county for care provided to their respective inhabitants. Seven of the regional hospitals operate as research and teaching hospitals and receive compensation for these activities from central government.

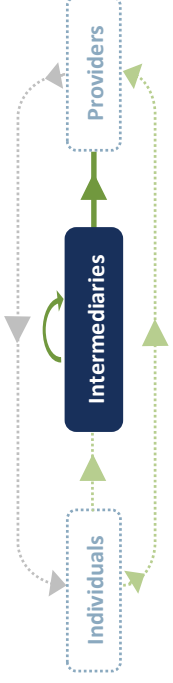


<b>Pharmacy:</b>	The government allocates conditional grants for drugs to the county councils. Drug use above the ceiling set by the state has to be paid for out of county council's own budget for other purposes. From 2002, a prescribed drug that qualifies for a subsidy must be exchanged for the cheapest comparable generic alternative available. Generic substitution does not apply to patented drugs.
<b>Long-Term Care:</b>	Responsibility for care of the elderly and disabled was transferred from the county councils to the local municipalities in 1992 (ADEL Reform). Municipalities are required to reimburse county councils for patients who remain in hospital after completion of medical treatment on a <i>per diem</i> basis. See Case Study 2.6.
<b>Mental Health:</b>	Municipalities are responsible for the provision of services to those with long-term mental illness. Similar to the 1992 ÄDEL reform, the 1995 Psychiatric Reform made the municipalities financially responsible for mentally ill patients when they no longer require hospital care.
<b>Disability:</b>	Municipalities are responsible for the provision of services to those with disabilities.
<b>Other:</b>	Most dentists and other health professionals are public salaried employees. For dental care, adults receive a financial subsidy from the national dental insurance system for basic dental care. This subsidy is paid directly to the provider. Previously, the reimbursement was based on a percentage of the national tariff, but now the subsidies are fixed according to the type of treatment.

#### Implications for Incentives and Health Principles

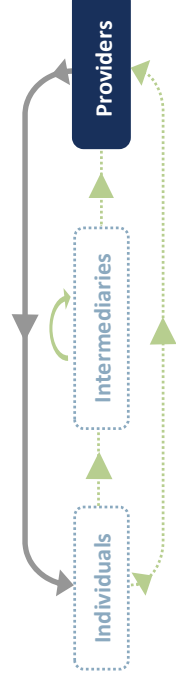
##### Incentives

- Autonomy granted to county councils for the management of health services introduces flexibility and innovation into the system, and successful experiments in one county can be adopted in others (Rae, 2005).
- Pharmaceuticals: Drug expenditure increased by approximately 10 per cent per annum from 1984 to 2002 and this was partly blamed on the absence of expenditure control mechanisms at the county level. Reforms in the late 1990s transferred responsibility for drug expenditure to the county councils. The councils have direct incentives to monitor and influence prescribing patterns (and each county council has a pharmaceutical committee for this purpose). The state-owned National Corporation of Swedish Pharmacies has the exclusive right to retail medicines to the general public through community pharmacies. The Pharmaceutical Benefits Board makes decisions based on cost-effectiveness data and pharmaceutical companies must submit economic evaluations, when relevant, as part of their applications for reimbursement.
- Purchaser-provider models in county councils: Incentives to increase output were weak in the purchaser-provider models applied by the county councils in the 1990s. Both the purchasers and providers were employed by the same body (i.e. the council) so any losses/gains were ultimately the responsibility of that same county council. While incentives to increase output had led to the development of the purchaser-provider arrangements, concerns with cost containment led to the re-introduction of budgets (Anell, 2005).
- Primary care: Private physicians who have contracts with the county councils are reimbursed on a per-case basis compared with public salaried doctors. The private physicians have incentives to work longer hours and see more patients. Concerns about low productivity in primary care are being addressed by adjusting provider payment mechanisms. In Stockholm county, primary care providers are paid a mixture of capitation and fee-for-service (Rae, 2005).
- Long-term care: Municipalities are incentivised to secure long-term care for patients who are ready to be discharged from hospital to avoid the *per diem* charges to the county councils (see Case Study 2.6). Hospitals are incentivised to reduce length of stay/pronounce a patient ready to be discharged (to receive *per diem* charges from the municipalities if long-term care is not found immediately). Following the reform, hospital beds for the elderly reduced but municipalities did not have financial capacity to expand care and have indicated problems with providing appropriate medical care for patients who are being sent home 'quicker and sicker'. Co-ordination of care is poor for patients transferring from county council to municipal responsibility, particularly for rehabilitation cases (Rae, 2005).



**Equity**

- State grant allocation has become an important issue for the government with complaints that the resource allocation formula creates 'winners' and 'losers' across the county councils. Similar complaints have affected the allocation of county council budgets to health districts.



## Providers

### Health Basket Dimensions

#### Depth (what is covered by public funding)

- No basic or essential health care package is defined. There are some definitions of what falls within the domain of health care and general guidelines for the priorities of the health care sector. There have been no major changes in the benefits package since 1980s (except for reduced subsidies for dental care).

#### Breadth (who is covered by publicly funding)

- For all services covered from public health funding, there is universal cover. All individuals are eligible to receive services.

#### Height (is there cost-sharing)

- Cost sharing rates: Flat-rate user charges apply for hospital care, primary care, prescription drugs and dental care. County councils are permitted to determine their own user charges for hospital and primary care. The charges vary across county councils: primary care physician visit €11-17; specialist consultation at a hospital €22-32; inpatient care €9 per public inpatient day. Co-payments for prescription drugs are set by the national government. Patients pay the full cost of prescription drugs up to €97 (in 2003 patients' out-of-pocket payments for drugs accounted for 24 per cent of total prescribed drugs costs). Above this, the level of subsidy gradually increases up to 100 per cent over a 12-month period. All individuals in receipt of care for the elderly and disabled must have a specified reserve sum to cover living expenses after all fees are paid. A maximum fee for home-help and other services was introduced in 2002.
- For dental care, adults receive a financial subsidy from the national dental insurance system for basic dental care. County councils are responsible for the provision of dental care to all children and adolescents (up to the age of 20 years).
- Exemptions: In most counties, individuals under 20 years of age are exempt from user fees. Fee reductions are also permitted for pensioners and low-income groups.
- High-cost protection schemes: There is a national ceiling on the total amount a person must pay in any 12-month period. An individual's total charges for health care in a 12-month period must not exceed (€100), not including inpatient care or drugs. The maximum co-payment for prescription drugs is €194 in any 12-month period. The exemption scheme is financed from the national health insurance scheme. For dental care, adults (20 years and older) receive a financial subsidy from the national dental insurance scheme for basic dental care. Where dental services are part of the treatment for a disease, or if the patient is elderly/disabled, the cost ceiling for health services (i.e. max of €100) applies. For selected extensive dental procedures, there is a special high-cost protection scheme (max co-payment of €850 per 12-month period) for patients aged 65 years and older.

### Health Care Delivery Issues

#### Waiting lists

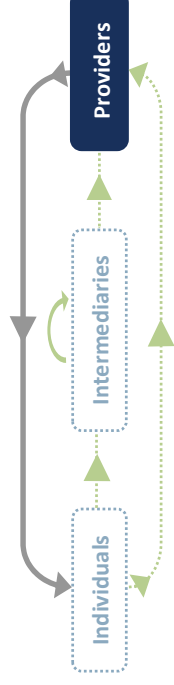
- A number of treatment guarantees have been introduced to address long waiting times for elective surgery. The 2003 National Treatment Guarantee imposes the '0-7-90-90' rule: Patients are guaranteed: 0 delay in accessing the health care system; to see a GP within 7 days; to see a specialist within 90 days; and to receive treatment within 90 days of diagnosis.

#### Patient choice

- Individuals are formally permitted to choose their primary care physician. Individuals can also seek care outside their health district or county council.

#### Primary/secondary care integration

- The referral process varies across county councils. In some counties, GPs have a gatekeeping role (e.g. make appointments with specialists etc., or provide referral letter). Patients can also seek care directly at hospital outpatient departments although the waiting times are longer and the fee for outpatient care is higher than at a primary



- health care centre.

All primary care centres run nurse-led clinics for diabetes, hypertension and some for allergy, asthma, COPD, psychiatry and heart failure. Some of the larger centres also provide nurse-led clinics for chronic neurological disorders. The current setting for people with chronic conditions, especially older people, aims to link primary health care, hospital care and community care through 'chains of care' or care pathways. Care of chronic disease is greatly facilitated in Sweden by national registries and guidelines. There are registries and national guidelines for diabetes, coronary heart disease, renal failure, hip fracture and hip replacement, cataract surgery, stroke and all forms of cancer. The development of regional and local clinical guidelines, often based on national guidelines, is encouraged by all counties.

### **Public/private interaction**

- A public hospital that accepts a privately-financed patient, for a profit, is in breach of local government legislation.

### **Implications for Incentives and Health Principles**

#### **Incentives**

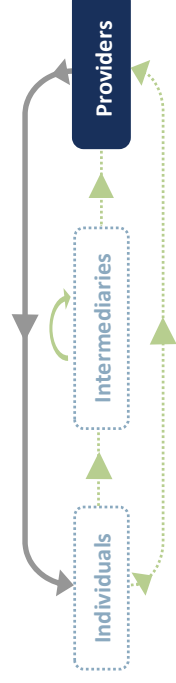
- User fees are structured to influence primary care utilisation patterns. Specialist consultation at a hospital costs €22-32 compared with €11-17 for a primary care visit. In practice, almost 50 per cent of primary care visits take place in hospitals indicating that other factors are more important in the care location choice.

#### **Equity**

- Equity in delivery: Using data from 2001, van Doorslaer *et al.* (2004) found that utilisation of physician care had a significant ( $p < 0.05$ ) pro-rich distribution, even after controlling for health care need, although available analysis did not distinguish between GP and specialist utilisation. For hospital inpatient care, the socio-economic distribution was not significantly biased after controlling for need (van Doorslaer *et al.*, 2004). Evidence of unequal distribution of services has not caused concern, possibly because the user charges for individual services are low (Anell, 2005). However, fee exemptions for those under 20 years and fee reductions for pensioners and low income groups introduce uneven patterns into the burden of user fee payments across the income distribution, the effects of which may not be picked up by standard equity measures (which focus on low vs. high incomes). High users of the system (i.e. the sick) will pay up to the high cost payment threshold each 12 month period. For small groups of patients, the combination of user charges for primary, hospital, pharmaceutical and long-term care may be high (Anell, 2005). Analysis also found that utilisation of dental care was significantly pro-rich ( $p < 0.05$ ) after controlling for need (van Doorslaer *et al.*, 2004). User charges are higher for dental care than for other services and there is limited high cost protection (approximately 60 per cent of total dental care expenditure is paid directly by patients).

- Waiting lists: The treatment guarantee might reduce long waits by increasing short waits unless other measures ensure an increase in productivity or resources (Rae, 2005). The guarantee could also interfere with the principle of treating those in greatest need first.

- Expansion of parallel private care could shorten waiting times for the public system if some patients choose to go private. This is only the case if private patients are not treated within public hospitals. This is not permitted in principle, but in practice there is close co-operation between public and private caregivers. The regulatory framework will need to be addressed if the private insurance market expands beyond its current levels (Rae, 2005).



**Sustainability**

- The number of county councils is not fixed and some were merged with the objective of controlling costs and increasing efficiency. Similarly, hospitals have been merged for the same reasons but there is limited evidence on economies of scale in the hospital sector.
- The emphasis of recent policy decisions has been on patient choice and market-oriented reforms. Public hospitals can now be sold/transferred to private commercial providers while maintaining public funding. Commentators agree that the role of the private sector will continue to increase (Mason, 2008).

**Universal cover**

- Publicly funded health care is available to the total population, consistent with the principle of universal coverage.

Sources: Wagstaff *et al.*, 1999; van Doorslaer *et al.*, 2004; Rae, 2005; Ansell, 2005; Glenngård *et al.*, 2005; Mason, 2008; CIA, 2009; OECD, 2009a

## United States

# Health System Summary

### Key Indicators

Population:	307.2m
Ratio of population aged 65+ to the total population:	13 per cent
Ratio of population aged 85+ to the total population:	1.9 per cent
GDP per capita:	US\$PPP 46,900 (2008 est.)
Total expenditure on health:	15.3 per cent of GDP (2006 est.)
Life expectancy at birth:	78.11 years
Infant mortality:	6.26 deaths per 1,000 live births

### Stated Policy Priorities

The four goals of the Department of Health and Human Services (HHS) for the period 2007-2012 are: 1) Health Care: Improve the safety, quality, affordability and accessibility of health care, including behavioural health care and long-term care; 2) Public Health Promotion and Protection, Disease Prevention, and Emergency Preparedness: Prevent and control disease, injury, illness, and disability across the lifespan, and protect the public from infectious, occupational, environmental, and terrorist threats; 3) Human Services: Promote the economic and social well-being of individuals, families and communities; 4) Scientific Research and Development: Advance scientific and biomedical research and development related to health and human services (US Dept. of Health and Human Service, 2008).

### Governance Structure

At the federal level HHS is the government's principal agency for health protection and provision of essential services, especially for those least able to help themselves (US Dept. of Health and Human Service, 2008). The Department has more than 300 programmes covering health and social science research, disease prevention, food and drug safety, etc., including the Medicare and Medicaid insurance programmes. Key agencies under the HHS include: the National Institutes of Health (medical research), the Food and Drug Administration, the Centers for Disease Control and Prevention, the Agency for Healthcare Research and Quality and others. The Centers for Medicare and Medicaid Services (CMS) administer the Medicare and Medicaid programmes, which provide health care to older persons, disabled Americans and low income earners. CMS also administers the State Children's Health Insurance programme. Many services funded by the HHS are provided at the local level by state or county agencies, or through private sector grantees.

### Finance and Resource Allocation

The health system is financed by general taxation, private health insurance and out-of-pocket payments. Public funding is restricted to health care for low income groups, older persons, people with specific disabilities and children. Most health care services are contracted out to private practitioners and hospitals. Payment to physicians is generally on a fee-for-service basis and a number of pay-for-performance programmes have been developed (see for example, Case Study 2.4 on the Physician Group Practice Demonstration).

US Health Reform: The Patient Protection and Affordable Care Act was passed in March, 2010 and this will have implications for financing and resource allocation in the US health care system. The key features of the reform are as follows (summarised by Davis, 2010):

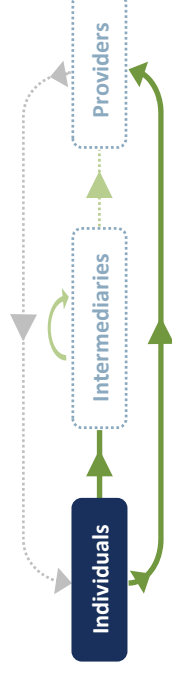
- New federal insurance market rules will prohibit restricting coverage or varying premiums based on health, set limits on the share of private premiums going for non-medical costs and establish essential standard benefit packages that guarantee beneficiaries a comprehensive array of services with limits on levels of cost-sharing;
- Health insurance exchanges: to more efficiently pool risk, lower administrative costs and provide eligible individuals and small businesses a choice of affordable

health plans;

- Affordability provisions for low-middle income families (e.g. standard benefit package, premium assistance on a sliding scale, expansion of Medicaid eligibility);
- Commitment to shared responsibility, preserving employer-sponsored insurance (e.g. including provision of health insurance tax credits to small businesses);
- Improvements to Medicare prescription drug benefits;
- New long-term care financing programme for the disabled;
- Increased focus on primary care (e.g. increases in payment for primary care under Medicare and Medicaid, incentives for practices to organize as patient-centred medical homes providing more accessible and co-ordinated care, and investment in primary care training and expansion of community health centres);
- Establishment of an innovation centre to test and spread effective payment methods that reward quality of care, rather than volume of services;
- Creation of an Independent Payment Advisory Board with the authority to make recommendations for reducing cost growth and improving quality in both the Medicare programme and the health system as a whole;
- Investment in infrastructure (e.g. IT).

As outlined in the description of the pre-reformed system below, there have been concerns with the growing number of uninsured and under-insured in the system, and with the burden of out-of-pocket payments on individuals. As noted by Davis (2010), the reforms address key problems faced by people who cannot afford health care (e.g. the uninsured, the intermittently insured, the underinsured, small businesses and employees, people with chronic conditions who have been denied coverage).





## Individuals

### Resource Contribution Mechanisms

#### Tax and social security (45.4 per cent of total health resources)

- Federal and state taxes jointly fund the public health insurance programme, Medicaid. Thirteen per cent of the non-elderly population are covered via Medicaid and the State Children's Health Insurance Program (SCHIP) (low-income adults and children) (Petigara *et al.*, 2007a).
- General tax resources are also required to fund Medicare which provides hospital and other cover for people aged 65 and older and for people with certain disabilities. Medicare is a combination of four programmes: Hospital Insurance (Part A), Supplementary Medical Insurance (Part B), Medicare Advantage (Part C), and the Medicare Prescription Drug Benefit (Part D).
- Medicare beneficiaries pay premiums (US\$110.50 per month in 2010) for Medicare Part B (Medical Insurance) for doctors' services and outpatient care. For some individuals, the monthly premium increases by an additional 10 per cent for each year that he/she could have had Part B but didn't sign up for it (except in special cases). For most Medicare beneficiaries, the premium is deducted from their social security benefit cheque.

#### Out-of-pocket payments (12.2 per cent of total health resources)

- Out-of-pocket payments are required for deductibles and other forms of cost-sharing.

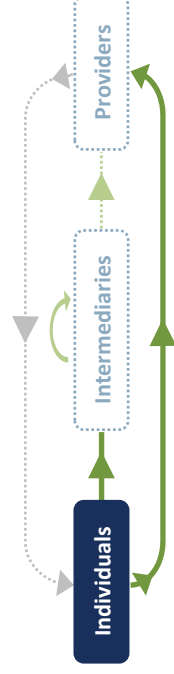
#### Private health insurance (35.2 per cent of total health resources)

- 61 per cent of the non-elderly American population receives private health insurance through their employer (Petigara *et al.*, 2007a).
- 5 per cent of the non-elderly American population purchase private health insurance in the individual market.
- The Medicare Modernization Act 2003 aimed to expand the role of private health plans in the Medicare programme. Approximately 23 per cent of Medicare beneficiaries have chosen the option of participating in a Medicare Advantage plan - a private sector managed care plan. Medicare payments per enrolled person are higher for private care plans than for traditional Medicare fee-for-service arrangements.
- Medicare Prescription Drug Coverage (introduced in 2006) is provided by private health insurance companies. Medicare beneficiaries can choose a drug plan and pay the relevant premium. Medicare reimburses the plans for a share of the drug costs.
- Private health insurance is mandatory in some states. In 2006, mandatory private health insurance coverage for all state residents was introduced in Massachusetts (with measures to make coverage affordable for all residents with subsidised/partially subsidised public health plans and expanded eligibility requirements for the state's Medicaid programme). The proportion of the population covered by insurance in the state has reached 97 per cent (Conis, 2009). In other states, there are mandates that oblige employers to provide insurance (Petigara *et al.*, 2008a).
- Health-savings accounts (HSAs) are tax-exempt accounts that are owned by employees and can be transferred to different health plans or jobs. Employees and employers can both contribute to HSAs (contributions are not mandatory). HSAs must be accompanied by a high deductible health plan. In 2008, the minimum deductible was US\$1,100 per individual (US\$2,200 for families). Maximum out-of-pocket expenditure was US\$5,600 for individuals (US\$11,200 for families) (Petigara *et al.*, 2008b). An estimated 6.1m people were enrolled in these plans in January 2008 (Petigara *et al.*, 2008b), accounting for less than 2 per cent of the population.

### Implications for Incentives and Health Principles

#### Incentives

- There is some evidence that HSAs encourage risk selection. In one survey, people holding HSAs or high deductible health plans were more likely to be in excellent/good health, less likely to report a health problem, less likely to smoke and more likely to have higher incomes (Petigara *et al.*, 2008b).

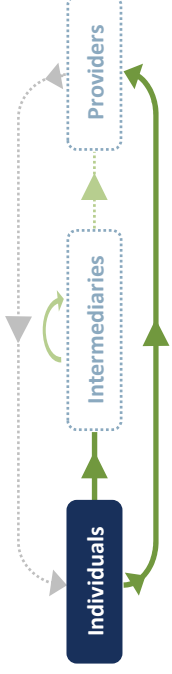


### Equity

- Equity in ability to pay: Analysis using 1987 data identified that public health care resources had an overall progressive distribution (payments increase as a proportion of income as income increases) while out-of-pocket payments and private health insurance premiums each had a regressive distribution (Wagstaff *et al.*, 1999).
- As part of the health reform programme, from 2014, private health insurance companies will be required to cover and charge the same premium to all individuals regardless of health status (Davis, 2010).
- For those who hold private health insurance, there is a trend towards higher cost-sharing and lower insurance cover. The number of people who are insured but facing high out-of-pocket payments relative to income (labelled as 'under-insured') has increased, affecting an estimated 25m people in 2007 (The Commonwealth Fund Commission on a High Performance Health System, 2009). From 2014, health insurance plans must meet essential benefit standards covering a range of services (e.g. hospital and physician services, prescription drugs, preventive services) with limits cost-sharing. Health insurance plans will be categorised according to the proportion of costs covered to help people understand their out-of-pocket liability. The percentage of expenses covered will vary by family income with limits on out-of-pocket payments for all income levels (Davis, 2010).
- There is some evidence that individuals holding HSAs or high deductible health plans are more likely than those with more comprehensive benefit plans to report delaying/skipping health care due to costs. The cost of the employee monthly premiums is similar for high deductible health plans and other private plans, but the average deductible at the point of service is larger for a high deductible health plan versus an average deductible of US\$30-US\$261 for other private plans) (Petigara *et al.*, 2008b).
- Relative to other countries, a higher number of people in the US with chronic illness report forgoing needed care because of costs (including going without needed medications). In 2008, more than half of chronically ill adults did not see a doctor when they were sick or did not adhere to recommended care (The Commonwealth Fund Commission on a High Performance Health System, 2009).
- An estimated 45m do not hold any health insurance in the US and this has been an important issue in the debate on health reform (Holzer *et al.*, 2009). In 2004, the uninsured cost an estimated US\$41bn in uncompensated care, of which an estimated 85 per cent was paid by federal, state and local governments (Petigara *et al.*, 2008a). Davis (2010) estimates that by 2019 the health reforms will increase the proportion of the insured population, half of whom will receive cover under Medicaid, and the other half will receive help in purchasing private health insurance cover. In particular, nearly 30 per cent of young adults are uninsured (e.g. too old to be covered by their parents' plans or unable to find jobs that offer health insurance benefits). From September 2010, young adults will be permitted to stay on their parents' insurance policies up to the age of 26 (or until they find a job with health insurance benefits) (Davis, 2010).

### Sustainability

- CMS administers Medicare and Medicaid and is the largest purchaser of health care in the US. In 2008, CMS spent US\$660bn on benefits and other costs, more than any other government agency, including the Department of Defence. Medicare alone accounts for 14 per cent of the total federal budget.
- The complexity of the private health insurance system is expensive. Net costs of private insurance administration (e.g. underwriting, marketing, claims payment) have been growing faster than total health spending (doubling between 2000-2008) (The Commonwealth Fund Commission on a High Performance Health System, 2009). As part of the health reforms, limits will be placed on the percentage of premium revenue going to administrative costs. Health insurers will also be required to submit a justification in advance of any proposed premium increase (Davis, 2010).
- Fee-for-service payments for providers have been identified in state-level research as an important driver of costs and potentially incentivising overuse of services (Conis, 2009).
- Medicare Modernization Act 2003: competition among private plans was expected to reduce Medicare spending in the long run. In 2008, payments to private plans by Medicare were on average 12 per cent higher than the traditional fee-for-service costs (Petigara *et al.*, 2009).



- There has been a concern about the financial sustainability of the Medicare programme and means-testing of Part B Medicare premiums was introduced as a cost containment measure (Petigara *et al.*, 2007b)
- Per capita expenditure on acute health care under the Medicare programme has been growing more slowly relative to private health expenditure per capita and private health insurance premiums (Kaiser Commission on Medicaid Facts, 2008).



## Intermediaries

### Pooling Resources

- One quarter of federal resources are allocated to the federal Department of Health and Human Services.
- Federal and state taxes are pooled to fund Medicaid. The overall federal share of Medicaid expenditure was 57 per cent in 2008. The federal share varies by state according to the ratio of state per capita income to the national average. Federal tax resources account for at least 50 per cent of Medicaid expenditure in every state but increases to 76 per cent in the poorest state (Kaiser Commission on Medicaid Facts, 2008).
- Medicare accounts for 52 per cent of the budget of the Department of Health and Human Services. The allocation to Medicare is determined by historic allocation.

### Purchaser-Provider Split

#### Direct provision?

**Primary and Acute:** Under Medicare, the majority of coverage is provided locally by professionals contracted by Medicare. Under Medicaid, services are mainly provided by the private sector. Medicaid contracts with managed care plans or pays private providers on a fee-for-service basis.

#### Payment to Providers

**Primary:** Physician reimbursement is based on a fee schedule that is adjusted according to factors such as the type of service provided, where the service is performed and geographical location. A number of pay-for-performance programmes have been developed. Almost 60 per cent of commercial Health Maintenance Organisations have a pay-for-performance programme (Petigara *et al.*, 2008c).

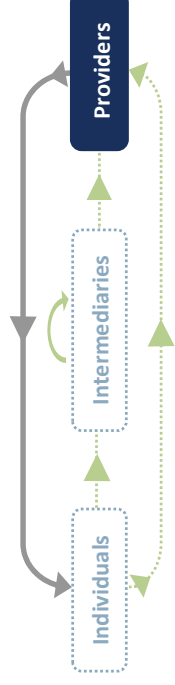
**Acute:**

Casemix-based funding is used to reimburse hospitals for the treatment of Medicare patients. The Deficit Reduction Act 2005 aimed to increase the incentive for hospitals paid by the prospective payment system to report good quality hospital data. Also, from 2008, Medicare does not reimburse hospitals for avoidable complications if acquired during a hospital stay (Medicare is estimated to spend approximately US\$300m per year in extra payments for adverse events) (Petigara *et al.*, 2008c).

### Implications for Incentives and Health Principles

#### Incentives

- Payment to providers: There is a lack of formal evaluation of pay-for-performance programmes and there is little evidence on their impact on the quality of care (Petigara *et al.*, 2008c).
- Payment to providers: In 2009, a state-level commission in Massachusetts recommended that fee-for-service payments be replaced by global payments throughout the state. In the new system, all providers would receive a global payment per patient. The global payment would be risk-adjusted for age, health status and other risk factors. Global payments would be made to Accountable Care Organisations (networks of providers). The patient's Accountable Care Organisation is determined by his/her choice of primary care provider.
- Payment to providers: Currently, updates to Medicare physician payments are made each year based on a statutory formula in section 1848(d) of the Social Security Act. The annual update calculation compares target spending to actual spending for Medicare physicians' services using a combination of annual and cumulative (since 1996) spending targets. By statute, if actual spending exceeds the targets, updates in subsequent years are reduced. If actual spending falls short of the targets, subsequent year updates are increased. However, actual spending on physicians' services has been growing at a faster rate than target spending. Since 2001, the statutory update formula has called for payment cuts. However, in every year since 2002 Congress has intervened to temporarily override formula requirements in favour of a specific, statutorily defined update. In passing these measures, Congress did not include a long-term modification to the underlying update formula, causing the gap between actual and target spending to grow even larger (Kuhn, 2008).



## Providers

### Health Basket Dimensions

#### **Depth (what is covered by public funding)**

- Medicare Part A (Hospital Insurance) helps cover inpatient care in hospitals, including critical access hospitals and skilled nursing facilities (not custodial or long-term care). It also helps cover hospice care and some home health care.
- Medicare Part B (Medical Insurance) - Most people pay a monthly premium for Part B. Medicare Part B (Medical Insurance) helps cover doctors' services and outpatient care. It also covers some other medical services that Part A does not cover, such as some of the services of physical and occupational therapists and some home health care. Part B helps pay for these covered services and supplies when they are medically necessary.
- Medicare Part D (Prescription Drug Coverage) – covers brand name and generic prescription drugs under the chosen prescription drug plan.
- State Medicaid programmes typically cover inpatient and outpatient hospital services; physician, midwife and nurse services; laboratory and x-ray services; nursing home and home health care for individuals aged 21 and older, early and period screening, diagnosis and treatment for children aged 20 and under, family planning services, rural health clinic services. Federal matching funds are also available for other optional services (e.g. prescription drugs, hearing aids, dental care).

#### **Breadth (who is covered by publicly funding)**

- Medicare cover is available for people aged 65 or older, people under age 65 with certain disabilities and people of all ages with end-stage Renal Disease (permanent kidney failure requiring dialysis or a kidney transplant). Medicare covers more than 43m beneficiaries.
- Medicaid cover is available for individuals with incomes falling below a specified threshold and who belong to one of the following groups: children, parents with dependent children, pregnant women, people with severe disabilities and the elderly. States are not permitted to limit Medicaid enrolment or establish a waiting list.

#### **Height (is there cost-sharing)**

- Under Medicare Part A, Medicare pays all covered costs except the following in each benefit period (2010 rates): deductible of \$1,100 for a hospital stay of 1-60 days, \$275 per day for days 61-90 of a hospital stay, \$550 per day for days 91-150 of a hospital stay, all costs for each day beyond 150 days. For care at a skilled nursing facility, the Medicare beneficiary pays \$137.50 per day for days 21-100 in each benefit period.
- For Medicare Part B, most people pay a monthly premium (\$110.50 per month).
- For Medicaid, the 2005 Deficit Reduction Act permits states to provide more limited benefits to some groups, and increases flexibility for states to introduce premiums/cost-sharing arrangements.
- 'Dual eligibles' are individuals who are enrolled with Medicare but who also receive Medicaid. Medicaid pays the Medicare premiums for these individuals and also the cost-sharing and cover for benefits that are not covered by Medicare. Until 2006, Medicaid also covered prescription drugs for dual eligibles. Medicare now covers drugs but states make a monthly payment back to the federal government to help finance this benefit.

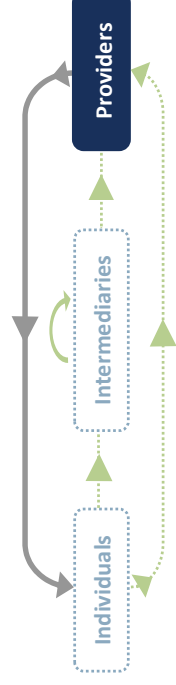
### Health Care Delivery Issues

#### **Legal status of providers**

- Most hospitals are privately owned.

#### **Primary/secondary care integration**

- Kaiser Permanente is a leading integrated health care programme in the country, covering 8.6m members in nine states.



### Implications for Incentives and Health Principles

#### Incentives

- Equity in health care delivery: Analysis using data from 1999 van Doorslaer *et al.* (2004) found that physician (GP and specialist outpatient) and dental visits had a significantly ( $p < 0.05$ ) pro-rich distribution even after controlling for variations in health care need, while hospital care had a significantly ( $p < 0.05$ ) pro-poor distribution controlling for need (van Doorslaer *et al.*, 2004).

#### Sustainability

- Individuals who are enrolled with Medicare but who also receive Medicaid, 'dual eligibles', account for approximately 45 per cent of Medicaid expenditure.

#### Universal cover

- There is no universal access to publicly funded health care free at the point of use.

Sources: Wagstaff *et al.*, 1999; van Doorslaer *et al.*, 2004; Pettigara *et al.*, 2007a, b; Pettigara *et al.*, 2008a, b, c; US Dept. of Health and Human Service, 2008; Kaiser Commission on Medicaid Facts, 2008; Kuhn, 2008; Pettigara, 2009; Conis, 2009; CIA, 2009; OECD, 2009a; The Commonwealth Fund Commission on a High Performance Health System, 2009; Holzer *et al.*, 2009; Davis, 2010; www.cms.hhs.gov/ [last accessed 02 July 2010]

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## **GLOSSARY AND ABBREVIATIONS**



# Glossary

<b>Acute Care</b>	Health care in which a patient is treated for a brief but severe episode of illness, such as an emergency or other trauma, or during recovery from surgery. Acute care is usually provided in a hospital and it may involve intensive or emergency care.
<b>Acute Hospital</b>	A hospital providing medical and surgical treatment of relatively short duration.
<b>Advanced nurse practitioner/ advanced midwife practitioner</b>	Advanced nursing and midwifery practice is carried out by autonomous, experienced practitioners who are competent, accountable and responsible for their own practice. They are highly experienced in clinical practice and are educated to masters degree level (or higher).
<b>Allocative Efficiency</b>	Combining inputs and/or outputs in the best possible proportions given prevailing prices.
<b>Bed Designation</b>	The assigning of beds in public hospitals for sole use by public or private patients.
<b>Bundled Payment</b>	A single payment for all services related to a specific treatment or condition (for example, <i>coronary artery bypass graft surgery</i> ), possibly spanning multiple providers in multiple settings.
<b>Capitation Fee</b>	A method of payment for health services in which the provider is paid a fixed, per capita amount.
<b>Casemix</b>	A method of quantifying hospital workload by describing the complexity and resource-intensity of the services provided. This differs from a simple count of total patients treated or total bed days used.
<b>Chronic Disease Management (CDM)</b>	An approach which is designed to address the systemic barriers to effective care and establish evidence based standards of care for particular conditions.
<b>Chronic Disease/Illness</b>	A long-term condition, lasting more than 6 months, that is non-communicable and involves some functional impairment or disability and that is usually incurable.
<b>Clinical Nurse Specialist</b>	A nurse specialist in clinical practice who has undertaken formal recognised post-registration education relevant to his or her area of specialist practice at higher diploma level. Such formal education is underpinned by extensive experience and clinical expertise in the relevant specialist area.
<b>Community Rating</b>	Requires that the same premium is charged for a particular insurance product to all individuals, regardless of individual characteristics (e.g. age, sex, health status).
<b>Co-Insurance</b>	The user pays a fixed proportion of the total cost, with the insurer paying the remaining proportion. See also cost sharing.
<b>Co-Payment</b>	The user pays a fixed fee (flat rate) per item or service. See also cost sharing.
<b>Cost Sharing</b>	Requires the covered individual to pay part of the cost of care received. This can take a number of forms including co-insurance, co-payments and deductibles.
<b>Cream Skimming</b>	The practice of selecting only those patients who are expected to generate a low workload.
<b>Creaming</b>	The overprovision of services to low severity patients.
<b>Day Patient</b>	A patient admitted to hospital for treatment on a planned (rather than an emergency) basis and who is discharged on the same day.
<b>Deductible</b>	The user bears a fixed quantity of the costs, with any excess borne by the State/insurer; deductibles can apply to specific cases or to a period of time.
<b>Delayed Discharge</b>	A patient whose treatment has concluded and who is medically fit to be discharged, but who cannot or will not leave the hospital for other reasons.
<b>Diagnosis-Related Group</b>	A group of cases with similar clinical attributes and resource requirements.
<b>Discharge Planning</b>	The active planning of discharge and post-discharge services for patients.
<b>Dispensing Fee</b>	A fee paid to pharmacists in respect of a prescription filled.

<b>Dumping</b>	The explicit avoidance of highly complex patients.
<b>Economic Sustainability</b>	Refers to the growth in health-care spending as a proportion of national income.
<b>Economic Cost</b>	Includes the direct and indirect costs of providing a service.
<b>Elective Treatment</b>	A planned or non-emergency admission or procedure that has been arranged in advance. This differs from emergency treatment that is urgently required.
<b>Eligibility</b>	Refers to whether or not an individual qualifies to avail of services.
<b>Entitlement</b>	A right to benefits or services granted by law or contract.
<b>Evidence-based Practice</b>	Practice which incorporates the use of best available and appropriate evidence arising from research and other sources.
<b>Ex-Factory Price</b>	The manufacturer's posted price, in some countries also referred to as the list price.
<b>Ex-Wholesale Price</b>	The ex-factory price plus wholesale mark-up, also known as the ingredient cost.
<b>Fee-for-Service</b>	A method of provider payment where providers receive a payment for each item of service provided.
<b>Fiscal Sustainability</b>	Refers to the ability of public revenue to meet public expenditure on health care.
<b>Fixed System of Reimbursement</b>	A payment system where the reimbursed amount does not change as activities increase or decrease.
<b>Generic Drug</b>	The bioequivalent of a branded original pharmaceutical whose patent on the active ingredient has expired.
<b>Generic Substitution</b>	The substitution of a generic drug for an identical brand-name drug that has lost its patent protection.
<b>Global Budget</b>	A budget at the hospital level set in advance to cover the aggregate expenditures of a hospital over a given period (usually one year) to provide a set of services that have been broadly agreed on by the hospital and the purchaser.
<b>Ingredient Cost</b>	Ex-factory price plus wholesale mark-up, also known as the ex-wholesale price.
<b>Inpatient</b>	A patient admitted to hospital for treatment or investigation who stays for at least one night.
<b>Interdisciplinary or Multidisciplinary Approach</b>	The term used to describe professionals from more than one discipline working together in a co-ordinated way.
<b>Multi-Annual Budgeting</b>	A system of budgeting where money is allocated for more than one year.
<b>Off-Patent</b>	A product not covered by a patent or supplementary protection certificate.
<b>Out-of-Pocket Fee</b>	A direct payment by the user at the point of use. See also user fee.
<b>Outpatient</b>	A patient who attends a hospital clinic for treatment and is not admitted to the hospital.
<b>Parallel Importing</b>	The legal importation of a patented product from one country where it is legally marketed into a second country where the patent holder also markets that product, but without the authorisation of the patent holder.
<b>Pay for Performance</b>	In the context of provider payment, the payment of providers according to achievement on structure, process or outcomes of care.
<b>Per diem Payment</b>	A payment (generally determined in advance) per day.
<b>Pharmacoeconomic Assessment</b>	Health technology assessment for drugs and medicines.
<b>Pre-Payment</b>	Payment in advance of use.
<b>Preventive Care</b>	Refers to measures to prevent disease, rather than treatment and cure.
<b>Primary Care</b>	An approach to care that includes a range of services designed to keep individuals well, from promotion of health and screening for disease to assessment, diagnosis, treatment and rehabilitation as well as personal social services. The services are

	usually directly accessible by individuals and are generally their first point of contact with the health service.
<b>Progressivity</b>	A payment is progressive if richer individuals pay more as a proportion of their income relative to poorer individuals.
<b>Proprietary Drug</b>	The first version of a pharmaceutical developed and patented by an originator pharmaceutical company which receives exclusive rights to market the product for a specified period of time.
<b>Prospective Reimbursement</b>	A payment system where the provider's payment rates or budgets are determined <i>ex ante</i> . Contrary to retrospective systems, there is no link with the individual costs of the provider.
<b>Protocol</b>	A plan specifying the procedures to be followed in providing health and social care. Protocols specify who does what, when and how.
<b>Purchaser–Provider Split</b>	The separation of purchasing and providing roles in health care.
<b>Reference Pricing</b>	A system whereby the public subsidy for drugs within a particular subgroup is set at a level determined by low cost alternatives within that subgroup (with patients required to pay the excess cost if they wish to use drugs priced above the reference-based subsidy).
<b>Regressivity</b>	A payment is regressive if poorer individuals pay more as a proportion of their income relative to richer individuals.
<b>Retrospective Reimbursement</b>	A system in which the provider's own costs are fully (or partially in certain systems) reimbursed <i>ex post</i> .
<b>Risk Adjustment</b>	In the context of provider payment, the process whereby payments are adjusted for characteristics of the individual that are associated with need for health care (e.g. age, sex, chronic illness, etc.).
<b>Risk Equalisation</b>	The transfer of funds within an insurance market to compensate companies for less favourable risk profiles.
<b>Risk Management</b>	The prevention and containment of liability by careful and objective investigation and documentation of critical or unusual patient care incidents.
<b>Salary</b>	A method of provider payment where providers receive a fixed payment for a defined period of time (usually per annum).
<b>Skimping</b>	The underprovision of services to highly complex patients.
<b>Technical Efficiency</b>	Maximising output produced for given inputs and within existing technology (or conversely, by using the minimum amount of input possible to produce a given level of output).
<b>Upcoding</b>	The systematic misrepresentation of patient data to receive higher reimbursements.
<b>User Fee</b>	A direct payment by the user at the point of use. See also out-of-pocket fee.
<b>Variable System of Reimbursement</b>	A payment system where variation in activities induces changes in payment.
<b>Whole Time Equivalent</b>	A measure of the number of individuals working in an organisation which takes into account the number of hours worked by both full- and part-time staff and expresses this in terms of the number of individuals working full-time that it would take to carry out the same work.





# Abbreviations

ACCEA	Advisory Committee on Clinical Excellence Awards
ACE	Angiotensin-converting Enzyme
ADRG	Adjacent Diagnosis-Related Group
AfC	Agenda for Change
AFS	Annual Financial Statement
APMI	Association of Pharmaceutical Manufacturers of Ireland
AR-DRG	Australian Refined Diagnosis-Related Group
ATC	Anatomical, Therapeutic and Chemical Classification
AWBZ	Exceptional Medical Expenses Act (Netherlands)
BMI	Body Mass Index
CAG	Comptroller and Auditor General
CCM	Chronic Care Model
CDM	Chronic Disease Management
CDS	Community Drugs Schemes
CEA	Clinical Excellence Award
CEO	Chief Executive Officer
CIC	Community Interest Company
CMS	Centers for Medicare and Medicaid Services
CPI	Consumer Price Index
CPU	Corporate Pharmaceutical Unit
CQUIN	Commissioning for Quality of Innovation
CRS	Constant Returns to Scale
CSO	Central Statistics Office
CUH	Cork University Hospital
CUMH	Cork University Maternity Hospital
DBC	Diagnose Behandelings Combinaties (Netherlands)
DEA	Data Envelopment Analysis
DFLE	Disability Free Life Expectancy
DHB	District Health Board
DMP	Disease Management Programme
DoHC	Department of Health and Children
DP	Drugs Payment
DQTC	Drug Quality and Therapeutics Committee
DRG	Diagnosis-Related Group
DTS	Dental Treatment Services
EAG	(Mental Health) Expert Advisory Group
ECG	Electrocardiogram
ED	Emergency Department
EEA	European Economic Area
EHR	Electronic Health Record
EPC	Enhanced Primary Care
EPP	Expert Patients Programme
EPR	Electronic Patient Record
ERHA	Eastern Regional Health Authority
ESRI	Economic and Social Research Institute
EU	European Union

EURONHEED	European Network of Health Economic Evaluation Databases
FAMA	Frequent Adult Medical Admission
FHT	Family Health Team
FMG	Family Medicine Group
FTE	Full Time Equivalent
GDP	Gross Domestic Product
GDRG	German Diagnosis-Related Group
GMS	General Medical Services
GMSPB	General Medical Services (Payments) Board
GNI	Gross National Income
GNP	Gross National Product
GP	General Practitioner
GST	Goods and Sales Tax
HAA	Health (Amendment) Act 1996
HCC	Hierarchical Condition Code
HCP	Home Care Package
HEDIS	Health Plan Employer Data and Information Set
HHS	(Department of) Health and Human Services
HICP	Harmonised Index of Consumer Prices
HIPE	Hospital In-Patient Enquiry
HIQA	Health Information and Quality Authority
HMO	Health Maintenance Organisation
HPSG	Hospital Procurement Services Group
HR	Human Resources
HRG	Healthcare Resource Group
HSCN	Health and Social Care Network
HSE	Health Service Executive
HSE-COS	HSE Community Ophthalmic Services
HTA	Health Technology Assessment
HTD	High Tech Drug
HUHC	High Use Health Card
ICER	Incremental Cost-Effectiveness Ratio
ICGP	Irish College of General Practitioners
ICT	Information and Communication Technology
ICTU	Irish Congress of Trade Unions
IDTS	Indicative Drug Target Scheme
IHF	Irish Heart Foundation
IMB	Irish Medicines Board
IMO	Irish Medical Organisation
INDC	Independent National Data Centre
INN	International Non-Proprietary Name
IPHA	Irish Pharmaceutical Healthcare Association
IPU	Irish Pharmaceutical Union
ISA	Integrated Services Area
ISD	Integrated Services Directorate
ISER	Incentivised Scheme of Early Retirement
ISIC	International Standard of Industrial Classification
IT	Information Technology
JES	Job Evaluation Scheme

KFH	Kaiser Foundation Hospital
KFHP	Kaiser Foundation Health Plan
KPNC	Kaiser Permanente North California
LDL	Low Density Lipoprotein
LHIN	Local Health Integration Network
LHO	Local Health Office
LTI	Long Term Illness
MBS	Medicare Benefits Schedule
MoHLTC	Ministry of Health and Long-Term Care
MS-DRG	Medicare Severity Diagnosis-Related Group
MT	Methadone Treatment
MVZ	Medizinische Versorgungszentren (Germany)
NCCP	National Cancer Control Programme
NCHD	Non-Consultant Hospital Doctor
NCPE	National Centre for Pharmacoeconomics
NEMU	National Employment Monitoring Unit
NESF	National Economic and Social Forum
NHO	National Hospitals Office
NHS	National Health Service
NICE	National Institute for Health and Clinical Excellence
NSW	New South Wales
NTPF	National Treatment Purchase Fund
NUI	National University of Ireland
ODB	Ontario Drug Budget
OECD	Organisation for Economic Co-operation and Development
OOH	Out-of-Hours
OTC	Over- the-Counter
PA	Programmed Activity
PAYE	Pay As You Earn
PBC	Practice Based Commissioning
PBS	Pharmaceutical Benefits Scheme
PCCC	Primary, Community and Continuing Care
PCG	Primary Care Group
PCRS	Primary Care Reimbursement Service
PCT	Primary Care Team
PDF	Pharmaceutical Distributors Federation
PEA	Pharmacoeconomic Assessment
PGP	Physician Group Practice (Demonstration)
PHO	Primary Health Care Organisation
PHQID	Premier Hospital Quality Incentive Demonstration
PIP	Practice Incentives Program
PLICS	Patient-level Information and Costing System
PMG	(Kaiser) Permanente Medical Group
PMS	Personal Medical Services
PMP	Performance Management Programme
POM	Prescription-only Medicine
PPMI	Performance Management and Management Information
PPP	Purchasing Power Parity
PPRS	Pharmaceutical Price Regulation Scheme

PRD	Pension Related Deduction
PRSI	Pay Related Social Insurance
PSI	Pharmaceutical Society of Ireland
QCC	Quality and Clinical Care
QNHS	Quarterly National Household Survey
QOF	Quality and Outcome Framework
RDO	Regional Director for Operations
RGN	Registered General Nurse
RHA	Regional Health Authority
RRMA	Rural, Rural and Metropolitan Area
RSC	Risk Structure Compensation
RVU	Relative Value Unit
SAHRU	Small Area Health Research Unit
SCB	Social Code Book
SHA	System of Health Accounts
SHI	Statutory Health Insurance (Germany)
SIP	Service Incentives Program
SLA	Service-level Agreement
SPHERE	Secondary Prevention of Heart Disease in General Practice
SWPE	Standardised Whole Person Equivalent
VA	Veterans Administration
VAT	Value Added Tax
VFM	Value for Money
VRS	Variable Returns to Scale
VTE	Venous Thromboembolism
WHO	World Health Organization
WTE	Whole Time Equivalents
ZVW	Health Insurance Act (Netherlands)

AUS	Australia
CAN	Canada
DEU	Germany
IRE	Ireland
NLD	Netherlands
NZ	New Zealand
SWE	Sweden
UK	United Kingdom
USA	United States

AUD	Australian Dollar
CAD	Canadian Dollar
NZD	New Zealand Dollar
SEK	Swedish Krona
USD	United States Dollar



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