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What are the equity, efficiency, cost containment and choice implications of private health-care funding in western Europe?

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ABSTRACT

This is a Health Evidence Network (HEN) synthesis report on private health-care funding in western Europe. Over the last 20 years the level of private spending on health care has risen in many western European countries, leading to concern about its impact. Evidence shows that private sources of health care funding are often regressive and present financial barriers to access. They contribute little to efforts to contain costs and may actually encourage cost inflation.

Cost sharing is widely used in western European health systems to moderate demand and/or raise revenue. However, the theoretical case for cost sharing is weak, particularly when applied to health care arising from referral or prescription.

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Summary

The issue

Over the last 20 years the level of private spending on health care has risen in many western European countries, leading to concern about its impact. The main channels of private spending are private health insurance policies and cost-sharing schemes in public health systems.

Findings

Evidence shows that private sources of health care funding are often regressive and present financial barriers to access. They contribute little to efforts to contain costs and may actually encourage cost inflation.

Private health insurance
The role of private insurance in western European health systems is largely determined by the extent of statutory health insurance. The evidence shows that:

- Allowing people to opt out of statutory health insurance threatens its long-term financial stability.
- Relying on complementary private health insurance to protect people against high levels of statutory user charges can increase inequities in access to care between those who can and cannot obtain such coverage.
- Supplementary private insurance increases inequalities of access, particularly where there are no clear boundaries between public and private health care provision.
- Tax subsidies for private health insurance are inefficient – because they distort signals about the real price of insurance and generate transaction costs – and inequitable, as they tend to benefit higher income groups.
- Private health insurers lack efficiency incentives and tend to incur higher administrative costs than statutory health insurance. Publicly-funded systems are generally more successful in controlling cost inflation than mainly privately-funded systems.
- Private health insurance can increase choice for some, but not to the extent that is often suggested, and under certain circumstances it may even restrict choice.

Cost sharing
Cost sharing is widely used in western European health systems to moderate demand and/or raise revenue. However, the theoretical case for cost sharing is weak, particularly when applied to health care arising from referral or prescription. The evidence shows the following.

- Cost sharing shifts costs to individuals and leads to significant reductions in the use of health care.
- Cost sharing reduces the use of both appropriate and inappropriate health care, which has negative implications for equity and efficiency.
- Cost sharing is not an effective means of containing costs.
- Differential charges can be used to encourage more cost-effective patterns of health care use.
- Because cost sharing creates financial barriers to access, it should be accompanied by mechanisms to protect heavy users of health care and lower income groups.

- Exemption systems require administrative capacity, may generate significant transaction costs and may limit cost sharing's ability to raise revenue.

Policy considerations

For private health insurance
Private health insurance should be regulated to ensure access and consumer protection, according to the role it plays in a country and European Union laws. Private health insurers should be required to provide clear, standardized information about prices, coverage and policy conditions. Clear boundaries between the private and public health-care sectors to prevent distortion of public resource allocation and inequalities of access. Tax subsidies for private health insurance should be removed.

For cost sharing
Exemption systems should be designed from a clearly-defined notion of need and applied consistently. Differential charges can be used to encourage more cost-effective usage. Efforts to contain costs should focus on health care supply rather than demand.

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1. Introduction

Health systems in western Europe are predominantly funded from public sources of revenue such as taxation or social health insurance (SHI) contributions, in order to provide a high level of protection from the financial consequences of ill health and to promote equity and efficiency. Private expenditure – on private health insurance and out-of-pocket payments – accounts for less than a third of total expenditure on health in most countries; the main exceptions are Greece and Switzerland *(1)*.

Out-of-pocket payments usually form a larger proportion of private expenditure on health than private health insurance. The latter rarely plays a significant role, either in terms of funding or as a means of gaining access to health care. In 1999 private health insurance accounted for less than 5% of total expenditure on health in every country except France, Germany and the Netherlands *(2)*.

Over the last 20 years levels of private expenditure on health care have risen in many western European countries, due to greater reliance on out-of-pocket payments and, to a lesser extent, increased use of private health insurance. These are two distinct funding mechanisms with their own policy objectives and implications. This synthesis summarizes evidence of their impact on policy objectives such as protection from financial loss in case of ill health, equity (financial burden and access to health care), efficiency, cost containment and choice. Most of the evidence comes from western Europe, with some additional evidence from the United

States. The studies reviewed in this synthesis were identified using international databases (PubMed, EconLit and IBSS) and through library and internet searches.

2. Private health insurance

Health insurance aims to protect people from the unpredictable and potentially catastrophic financial loss associated with ill health. It does this by pooling financial risk among many people over time. Health insurance can be publicly or privately funded and organized. Neoclassical economists argue that the market, which sets prices through the interaction of supply and demand, is the best mechanism for allocating resources. However, the market for health care does not conform to models of perfect competition, mainly due to information asymmetry between providers and consumers. As a result of information asymmetry, the provider acts as the consumer's agent, supplying the services considered appropriate according to the former's superior information. Markets for health insurance are also likely to be inefficient if:

- the risk of people becoming ill and making a claim is not independent across the population;
- the probability of people becoming ill is high or certain, as it might be for older people or r those already ill;
- it is difficult to estimate the probability of future claims;
- people are able to conceal relevant information from insurers (adverse selection);
- being insured encourages people – patients or providers – to behave in ways that affect either health care need or health care costs (moral hazard) *(3)*.[1]

Although some of these failures can be corrected by regulation, private health insurance is often insufficiently regulated *(5)*. This is partly because regulation is a complex process requiring substantial technical and financial capacity, and partly because most corrective measures have negative implications for policy objectives such as equity, efficiency and choice. An insufficiently regulated market results in incomplete coverage and problems of affordability for some groups, for example, people with pre-existing conditions, disabled people, older people and people with low incomes, particularly where risks are pooled on an individual or small group basis rather than a community basis.

In most countries health insurance is publicly funded and organized. From an economic perspective this response is justified by the existence of market failures and the problems associated with regulating private health insurance. At the same time private health insurance may offer potential advantages over public health insurance in terms of increasing choice, mobilizing resources for the development of infrastructure, encouraging innovation or enabling public resources to be targeted at poorer people *(5)*. Whether these advantages are realized in practice, however, depends on the structure and conduct of the market for private health insurance, the way in which it is regulated and its relationship with the statutory health system.

[1] Moral hazard also occurs in public health insurance systems *(4)*.

2.1 The role of private health insurance

Private health insurance plays different roles in different contexts. It is possible to identify five distinct roles: dominant, compulsory, substitutive, complementary and supplementary.[2]

Dominant

In the United States private health insurance is the main method of funding health care for the working population. It is purchased on a voluntary basis, mainly through employers. Since 1966 publicly-funded health care coverage has been available to people aged 65 and over (Medicare) and people with low incomes (Medicaid). Medicare is funded by a combination of employment-related taxes, general tax revenue and some patient cost sharing. Medicaid is funded equally by federal and state government general tax revenue. In addition, large populations are directly provided with health services funded from general tax revenue or through public and private insurers. These include active and retired military personnel and their families, war veterans and government employees.

About 40% of the US population is covered by one or more government programmes. However, due to regional variations in Medicaid eligibility criteria, problems relating to the affordability of private coverage and poor uptake of government programmes or employer-provided coverage, 16% of the non-elderly population is not covered at any given time by any type of health insurance *(6)*. Two-thirds of the total uninsured population are poor and near-poor people, although 80% are in working families. A core group of about 3% of the population either cannot obtain or refuses coverage – mainly young adults, working poor people and socially dislocated people *(7)*. Tax credits have been introduced to encourage these people to obtain coverage, but with less positive effect than expected; even when offered employer or insurer-subsidized coverage, many refuse *(8)*.

Private health insurance accounts for 35% of total expenditure on health, whereas public sources of funding accounted for 43% in 2000 *(9)*.

Compulsory

In Switzerland it has been compulsory for all residents to purchase private health insurance since 1996. Private health insurance was made compulsory in order to address issues arising from adverse selection and risk selection. Private health insurers operating in Switzerland are subject to a strict regulatory regime involving open enrolment, community-rated premiums, a standardized minimum package of benefits and a risk adjustment mechanism. However, while compulsory private health insurance in Switzerland addresses issues related to adverse selection, it gives rise to concerns about equity and cost containment *(10)*. These concerns are likely to be magnified in countries with limited regulatory capacity.

With the exception of Switzerland, private health insurance in Europe is always purchased on a voluntary basis and plays a substitutive, complementary or supplementary role, as summarized in Table 1.

[2] In lower-income countries that find it difficult to raise revenue from public sources, or where systems of statutory health insurance have deteriorated, some form of community-based pre-payment may be developed as an alternative to reliance on out-of-pocket payments.

Substitutive

Substitutive private health insurance provides coverage that would otherwise be available from the state. It is purchased by those excluded from participating in some or all aspects of statutory health insurance – for example, those with an annual income over €30 700 per year in the Netherlands and self-employed people in Belgium – or by those who can opt out of statutory health insurance, such as employees with annual earnings over €45 900 in Germany.

Complementary

Complementary private health insurance provides coverage for services excluded or not fully covered by statutory health insurance. It sometimes covers whole areas of care, such as dental care in many western European health systems or outpatient pharmaceuticals in Canada. It can also cover the cost of statutory user charges, as in Denmark, France, Italy and Slovenia. The benefits provided by complementary private health insurance are obviously influenced by the nature of the benefits covered by statutory health insurance and may therefore vary from country to country.

Supplementary

Supplementary private health insurance usually covers the same range of services as statutory health insurance, which is why it is often referred to as "double coverage". Its main purpose is to increase the choices of provider (for example, private providers or private facilities in public institutions) and level of inpatient hotel amenities (for example, a single room). By increasing the choices of provider it may also provide faster access to health care. This type of private health insurance can be found in all western European countries. It is often sold in combination with complementary and/or substitutive private health insurance.

Table 1. The role of private health insurance in western European health systems

Role	Coverage	Examples
Substitutive	for people excluded from or allowed to opt out of statutory health insurance	*excluded*: families with annual incomes over €30 700 in the Netherlands *allowed to opt out*: families with annual earnings over €45 900 in Germany
Complementary	services excluded or only partially covered by the state such as dental care or user charges	*excluded services*: France, Ireland, the Netherlands, Spain, the United Kingdom *cost sharing*: Belgium, Denmark, France, Ireland, Italy, Luxembourg, Portugal, Sweden
Supplementary	increased choice of provider and faster access	all countries; the main role of private health insurance in Finland, Greece, Portugal, Spain, Sweden and the United Kingdom

Source: *(11)*

The extent of statutory health insurance is a key determinant of the role private health insurance plays in a country. In turn, the way in which private health insurance affects policy objectives depends heavily on the role it plays. For this reason much of the following discussion of research evidence concerning private health insurance in western Europe is

structured according to whether private health insurance plays a substitutive, complementary or supplementary role.

Evidence concerning the impact of private health insurance in European countries is relatively limited, partly due to low levels of research interest in what has been a relatively small source of total health care funding and partly due to the difficulty of obtaining relevant data. Much of the evidence summarized here is based on recent reviews *(11, 12)* and additional evidence from the United States, where relevant. Determinants of the demand for private health insurance in western Europe include income, age, gender, employment status, occupational status, educational status and area of residence. Those most likely to be covered by private health insurance are middle-aged professional men living in urban areas *(11)*.

2.2 Equity in funding health care

Premiums for private health insurance can be priced (rated) according to an individual's risk of ill health or on the basis of the average expenditure incurred by a "community" (a firm or a geographically-defined area). Individuals buying private health insurance are usually charged risk-rated premiums, whereas groups – usually employees in a firm – are usually offered community-rated premiums.

Because there is no link between the price of premiums and personal income, private health insurance leads to a regressive distribution of financial burden – that is, poorer people pay proportionately more than richer people. Risk-rated premiums are more regressive than community-rated premiums and provide limited protection from financial risk due to the relationship between income and health status – on average, people in lower income groups tend to have higher rates of morbidity and mortality than those in higher income groups.

Analysis of the way in which private health insurance affects equity in funding the health system reveals that it is highly regressive where it plays a dominant or compulsory role and the majority of the population relies on it for coverage, as in the United States and Switzerland *(13)*. Complementary private health insurance is also regressive, particularly where it is purchased by middle-income groups and therefore covers a relatively large proportion of the population. Where private health insurance is supplementary or substitutive, and therefore mainly purchased by people in higher income groups, the effect on funding is found to be mildly progressive. Over the course of the 1990s, private health insurance became less progressive in most countries.

The finding that private health insurance contributes to the progressivity of health system funding in some countries must be interpreted with caution. Wagstaff et al.'s study *(13)* focuses on equity in terms of paying for health care; it does not analyse equity in the distribution of health care benefits. Supplementary private health insurance appears to have a progressive effect on funding health care because those it covers continue to contribute to statutory health insurance, so their contribution to total health system funding is relatively high. However, the benefits provided by supplementary health insurance accrue exclusively to who are covered by it, who tend to come from higher income groups. The net effect on health system equity is therefore regressive. In the case of substitutive private health insurance, those covered no longer contribute to statutory health insurance, so not only is the state's capacity for pooling risk reduced, the net effect on equity is also likely to be regressive.

2.3 Access to health care

The economic problem of adverse selection creates strong incentives for private health insurers to select risks – that is, to attract people with a lower-than-average expected risk of ill health and deter those with a higher-than-average expected risk. Adverse selection is most effectively addressed by making health insurance compulsory. However, where private health insurance is purchased on a voluntary basis, insurers may be able to select risks explicitly, by rejecting applications for coverage, excluding or charging higher premiums to cover pre-existing conditions and offering annual rather than lifetime cover. If explicit risk selection is prohibited by regulatory requirements such as open enrolment, cover of pre-existing conditions and community rating, private health insurers may engage in covert forms of risk selection – for example, advertising via the internet to attract younger people or marketing private health insurance alongside cut-price gym membership to attract people who enjoy keeping fit. Because community rating increases private health insurers' incentives to select risks, it may need to be accompanied by a system of risk adjustment.

As a result of risk selection in markets for private health insurance, some groups of people may not be able to obtain an affordable level of coverage or any coverage at all. Those most likely to face barriers to purchasing private health insurance include young adults, older people, those in poor health or with disabilities and those in lower income groups. At the same time, the seriousness of these barriers largely depends on how much people rely on private health insurance to protect them from financial loss when they are ill.

In Germany and the Netherlands substitutive private health insurance is the only or main source of financial protection against illness for some groups of people. Due to risk selection by private health insurers, older people, people in poor health and those with large families have found it difficult to obtain affordable substitutive coverage. For this reason private health insurers in both countries are now required to provide older people with a minimum package of benefits for a premium set by the government. In the Netherlands the premium is subsidized by younger people covered by substitutive private health insurance. Private health insurers in Germany are also required to offer lifetime cover. To reduce financial barriers to access in markets for substitutive private health insurance, governments need to apply much tighter regulatory controls than are usually found in markets for complementary or supplementary private health insurance.

Complementary private health insurance covering statutory user charges presents financial barriers to access for people in lower income groups, particularly those whose income is just above the threshold for any exemptions from user charges. In France, where complementary private health insurance has expanded to cover about 85% of the population, the likelihood and quality of coverage are highly dependent on social class and age, employment and income levels *(14, 15)*. Research in France and Spain shows that those covered by complementary private health insurance consult doctors and dentists more frequently than those without this type of coverage *(16, 17)*.

Supplementary private health insurance increases inequalities in access where it enables people to bypass waiting lists in the public sector. It may also distort the allocation of public resources for health care, particularly if the boundary between public and private provision is not clearly defined – for example, if providers are able to work in both sectors, if capacity is limited or if private health insurance creates incentives for providers to treat public and

private patients differently. In Ireland, where people with private health insurance are able to make use of private beds in public hospitals – in spite of long waiting times for public patients in these hospitals – research shows that the use of all types of hospital treatment (planned, emergency and day care) by private patients has been increasing at a faster rate than use by public patients *(18)*. Research also shows that private patients accounted for close to 30% of all hospital discharges in 1999 and 2000, even though only about 20% of acute beds are designated as private.

International analysis suggests that private health insurance lowers equity in the use of doctors' services in OECD countries *(19)*. Although in most countries this effect is small, private health insurance is found to have a significant effect on equity in the use of specialists' services in Ireland and the United Kingdom – where supplementary private health insurance mainly provides faster access to health care – and to a lesser extent in Austria, Belgium, Canada, Denmark, Italy and Spain.

2.4 Cost containment

In health systems with high levels of statutory health insurance coverage, private insurance often exists to increase consumer choice. As a result, private insurers in western Europe have limited incentives to contain costs. With the exception of some of the largest insurers in Spain and the United Kingdom, most have been reluctant to lower unit costs and premiums by adopting "managed care" strategies such as vertical integration,[3] preferred provider networks, selective contracting or monitoring of providers' behaviour *(12)*. This is partly because of fear that restricting choice will lead to reductions in demand. Attempts to restrict choice in return for lower premiums in Belgium, France and Spain have not been successful *(12)*. The potential for private health insurers to employ managed care strategies may also be limited by lack of bargaining power, particularly where markets are fragmented and providers are well-organized.

Another reason private insurers have few incentives to contain costs is that private health insurance is mainly purchased and paid for by individuals rather than employers. However, over the last 15 years the proportion of policies purchased by groups has risen dramatically in some countries. Group policies currently account for almost all policies in Greece, Ireland, Portugal, Sweden and the United Kingdom and over half of all policies in France and the Netherlands *(12)*. In the United States most polices are purchased through employers. Markets for group-purchased private health insurance tend to be more competitive, because employers have greater purchasing power than individuals and are able to negotiate cheaper coverage.

Evidence shows that publicly-funded health systems are generally more successful in controlling cost inflation than systems that are mainly funded from private sources *(20)*. Also, countries that link increased health care expenditure to pre-defined standards such as the expected rise in gross domestic product (GDP) or a fixed annual budget – for example, Canada and the United Kingdom – seem to be most successful in maintaining the lowest annual inflation rates.

[3] Vertical integration is actually precluded by legislation in the Netherlands.

2.5 Efficiency

Private health insurers tend to incur higher management and administrative costs than statutory health insurers, partly because private pools are usually much smaller than statutory pools, but mainly due to the extensive bureaucracy required to assess risk, rate premiums, design benefit packages and review, pay or refuse claims (see Table 2). They also incur additional expenses through advertising, marketing, distribution, reinsurance and the need to generate a profit or surplus.

Economic theory suggests that high transaction costs are inefficient if they can be avoided under an alternative system of funding and providing health care *(3)*. In western Europe these additional costs cannot be justified on the grounds that private health insurers are more innovative than their public counterparts in devising mechanisms to contain costs. In practice, private health insurers in western Europe are more likely to compete on the basis of risk selection than through competitive purchasing. Most attempts to contain costs operate on the demand side, through cost sharing.

Transaction costs have not been lowered as a result of increased liberalization of private health insurance markets in the European Union since 1994. In Ireland higher levels of advertising following liberalization have actually increased transaction costs *(12)*.

Table 2. A comparison of administrative costs among private and public insurers

Country	Private (% of premium income)	Public (% of public expenditure on health)
Austria	22% (early 1990s)	3.6% (2000)
Belgium	25.8% (commercial individual) 26.8% (commercial group)	4.8%
France	10%-15% (mutuals) 15%-25% (commercial)	4-8%
Germany	10.2%	5.09% (2000)
Greece	15%-18% (commercial life insurers)	5.1%
Ireland	11.8% (Vhi Healthcare 2001) 5.4% (Vhi Healthcare 1997)	2.8% (1995)
Italy	27.8% (2000)	0.4% (1995)
Luxembourg	10%-12% (mutuals)	5%
Netherlands	12.7%	4.4%
Portugal	c. 25%	-
Spain	c. 13%-15%	5%
United Kingdom	c. 15%	3.5% (1995)
United States	c. 15%	c. 4%

Source: *(12)*. Note: figures for 1999 unless otherwise stated

Private health insurers in the United States have similar levels of administrative costs to those of their counterparts in western Europe. This is partly due to the fact that many American insurers also organize and provide health care, which increases their transaction costs.

2.6 Choice

Depending on its role, private health insurance can offer an alternative to public coverage and increased choices of insurers, providers and treatments. In western Europe the opportunity for individuals to choose between public and private coverage is limited to employees and their dependants in Germany with annual earnings over €45 900 – about a fifth of the population. However, over three-quarters of those who have this choice opt to be covered by statutory health insurance, which tends to be cheaper than private health insurance for older people, people in poor health or with disabilities and large families. Choosing between public and private coverage in Germany is complicated by uncertainty about health needs, employment status and future income. Since 2000, people 55 years old and over in Germany can no longer return to the statutory health insurance system once they have opted for substitutive private health insurance.

Whether or not people are able to benefit from a choice of insurers depends on the structure and regulation of the private insurance market. In both the German and the Dutch markets for substitutive private insurance, choice is severely restricted for all but new entrants to the market and very young people because premiums are rated on the basis of age at entry and claims histories are non-transferable. Consequently, switching from one private health insurer to another involves costs arising from higher premiums and/or exclusion of pre-existing conditions. There is very little switching among private insurers in either country.

Since the extension of choice of health funds to most of the population in the Netherlands in 1993 and Germany in 1996, those with statutory coverage are better able to exercise choice of insurer than those with private coverage. However, permitting health funds to sell complementary or supplementary private health insurance may restrict choice of fund for some people if the funds sell statutory and private coverage in a single package. In the Netherlands, for example, some complementary/supplementary private policies state that the health fund will automatically terminate a contract if the policy holder switches to another fund for the statutory part of his or her health coverage *(12)*.

In some countries private insurers may offer a range of benefit packages. In theory offering more than one product ("product differentiation") allows people to choose a benefit package tailored to meet their needs. However, it can also be used to segment the market, giving private health insurers greater opportunity to select risks. Consumers may be confused by a wide range of products and find it difficult to make value-for-money comparisons, particularly if different insurance companies use different terms to describe their benefit packages. Private insurers can reduce consumer confusion by using standardized terminology and benefit packages. Consumers can also be helped if they have access to comparable information about the price, quality and policy conditions of different products – for example, comparative tables compiled by consumer associations or media outlets. Unfortunately private insurers in western Europe have few incentives to increase transparency; evidence from several countries suggests that some people purchase inappropriate policies or inadequate levels of coverage *(12)*.

2.7 Discussion and current debates

Many governments in western Europe are committed in principle to providing publicly-funded health care for all or most of their populations. At the same time concerns about the

sustainability of public funding are widespread. One policy response is to promote greater use of private insurance as a means of shifting expenditure to individuals and, in some cases, employers. This section considers the implications of expanding private health insurance in western European health systems. It begins by examining two aspects of public policy related to private health insurance – regulation and tax subsidies – and then discusses issues relevant to substitutive, complementary and supplementary roles.

Regulation

Western European markets for complementary and supplementary private health insurance tend to be loosely regulated, because of either their traditionally minor role relative to statutory insurance or government reluctance to intervene on ideological grounds. Since July 1994, however, government intervention in private health insurance markets has been restricted by the European Commission's Third Non-Life Insurance Directive *(21)*, which aims to create a single market for all types of insurance, including health insurance, within the European Union and prevents governments from:

- restricting the sale of private health insurance to a single insurer, such as the statutory health insurer, or to certain types of insurer, for example non-profit insurers or health insurance specialists;
- treating insurers differently on the basis of their legal status, unless it can be shown that they are providing services of general interest and the differential treatment is in proportion to the burden of providing such services;
- requiring systematic prior notification of private health insurance premium rates and policy conditions;
- subjecting private insurers to regulations such as open enrolment, community rating, lifetime cover or risk adjustment.

The directive seriously limits a government's capacity to introduce regulatory measures that go beyond solvency requirements. However, governments do retain some residual powers to protect consumers where private health insurance serves "as a partial or complete alternative to health cover provided by the statutory social security system", according to Article 54, which indicates that a government may require the following in order to protect consumers:[4]

- open enrolment
- community rating
- lifetime cover
- policies standardized in line with the coverage provided by statutory health insurance, with a prescribed maximum premium rate
- participation in risk adjustment schemes.

However, there are areas of uncertainty regarding the application of regulatory measures to substitutive private insurance. There is also controversy over whether – and how – governments might be able to justify regulatory measures in markets for complementary and supplementary private insurance. While it would be wrong to regard the directive as the primary barrier to ensuring a sufficient level of social or consumer protection in private health

[4] So long as they are shown to be necessary and proportional, do not unduly restrict the right of establishment or the freedom to provide services and apply in an identical manner to all insurers operating within a country.

insurance markets, there is no doubt that the directive makes it more difficult for governments to adopt regulatory measures involving control of products and prices.

In the absence of product and price controls, governments need to ensure the availability of sufficient information about the price, quality and conditions of private health policies. In many European Union countries people have to rely on private health insurers and insurance brokers to provide them with information, although sources of comparative information have become more readily available thanks to efforts by consumer associations and the media. Governments should not underestimate how difficult it can be for people to compare private health insurance products for value for money, even in markets with no more than two insurers, as in Ireland.

Tax subsidies

Tax subsidies to encourage people to purchase private health insurance tend to be regressive, particularly if they are applied at the marginal tax rate, because they increase the value of the subsidy to people in higher tax bands *(22)*. They are inefficient because they distort signals about the real price of insurance and generate transaction costs. Evidence from the United Kingdom shows that tax subsidies are expensive and do not succeed in stimulating demand for private health insurance *(23)*. In recent years many western European governments have either reduced or abolished tax subsidies for private health insurance *(12)*. Tax subsidies are widely used to encourage uptake of private coverage in the United States, but they are only moderately successful in reducing the number of uninsured people and are a relatively inefficient way of expanding coverage *(24, 25)*. Tax subsidies for employer-paid premiums also serve as an incentive for employees to purchase more coverage than they otherwise would.

Opting out and substitutive private health insurance

Governments are sometimes urged to adopt the German model, allowing people to opt out of statutory health insurance. It is argued that this will ease pressure on public expenditure and increase health system efficiency by stimulating competition between statutory and private insurers. Some groups put forward proposals to allow opting out in Italy in the early 1990s, but their plans were rejected. Portugal and Austria have actually enacted legislation to allow opting out on a group basis, but to date very few groups have chosen to opt out in either country. Beyond western Europe, the Russian Federation has introduced legislation to allow opting out, and it has been permitted in Chile since 1981.

Opting out raises important issues for governments, as the experience of Germany and the Netherlands shows *(12)*. There is also extensive evidence about the impact of opting out in Chile *(26, 27, 28)*. Overall, the possibility of voluntary exits from statutory health insurance threatens its long-term financial stability. Due to differences in the way in which statutory and private health insurers operate, the latter are likely to attract younger and healthier people, leaving the former with a disproportionate number of large families, older people and people in poor health. A similar situation may arise when higher income people are excluded from statutory coverage, due to the relationship between health status, age and income. In either case the burden of raising revenue to fund statutory health insurance falls disproportionately on people with lower incomes and lower health status – unless this revenue is subsidized through taxation or mandatory contributions from those with private coverage. Allowing people to opt out has put financial pressure on statutory health insurance in all three countries.

Furthermore, some aspects of the way private insurers operate may restrict choice and prevent people from obtaining an affordable and adequate level of substitutive coverage. This may not be a problem if people have the right to return to statutory health insurance, as in Chile. Germany and the Netherlands have struggled to address the issues of voluntary and compulsory opting out for two decades. In 1986 the Dutch government prohibited voluntary opting out, moving to a system of compulsory opting out, in which people with high incomes are excluded from statutory coverage of primary and acute inpatient care. In 2000 the German government made the decision to opt out irreversible for people aged 55 and over and in 2002 it raised the earnings threshold for opting out from €41 400 to €45 900. As a result, substitutive private coverage is no longer the preserve of relatively wealthy individuals and the regulatory focus has had to shift from an emphasis on consumer protection to a concern for social protection.

The uneasy relationship between statutory and private coverage was a key issue in the 2002 Dutch election. The government is currently proposing a system of compulsory private health insurance based on the Swiss model. There are calls for the introduction of a similar system in Germany. The Dutch reform proposals and German policy debates arise from dissatisfaction with systems seen as overly complex and subject to perverse incentives. While these views reflect a belief in the ability of competitive markets to produce efficiency gains, they also reflect strong opposition to universal statutory coverage from interest groups such as private insurers, civil servants and employers.

Introducing compulsory private health insurance is likely to be problematic in European Union countries due to the single market in insurance, which restricts governments' ability to impose product and price controls on private insurers (see above). Case law from the European Court of Justice suggests that a social security scheme operated by private health insurers would be subject to single market legislation and competition law. This raises concerns about equity and efficiency, as the Swiss experience shows that a system of compulsory private health insurance requires considerable government intervention.

Financial protection and access

In wealthier countries complementary private health insurance may be seen as a convenient way of allowing governments to shift health care costs to individuals and insurers without incurring significant political opposition or public resistance or raising concerns about equity (see below).[5] However, the French experience suggests that complementary private health insurance covering statutory user charges is neither equitable nor efficient and doubly disadvantages people in lower income groups, who may not be exempt from user charges and may be unable to afford private coverage. Under such circumstances, the burden of paying for health care at the point of use falls disproportionately on those who are likely to be most in need of it.

To address the inequalities of access to health care arising from unequal access to complementary private coverage, the French government in 2000 introduced a law on universal health coverage (CMU), extending free complementary private coverage to approximately five million people earning less than €550 per month. Complementary private health insurance now covers about 94% of the population *(29).* The Slovenian government is attempting to reform its system of complementary private coverage by increasing tax revenue.

[5] In poorer countries the choice may be between out-of-pocket payment and making some form of pre-payment available.

Governments may favour complementary private insurance covering benefits excluded from statutory insurance, particularly if the statutory benefits package can be clearly defined using cost-effectiveness and/or other explicit criteria. This would leave people to purchase private coverage for non-effective or less cost-effective treatment on a voluntary basis. In practice, however, governments have found it politically, technically and financially difficult to define a minimum level of statutory benefits.

The Dutch, German and Israeli experience of attempting to define statutory benefits, in part based on cost-effectiveness criteria, suggests that governments find it easier to remove whole areas of care from coverage – notably, dental care and pharmaceuticals – than to eliminate individual services. In addition to concerns about equity of access to certain types of care, this approach may also be politically difficult to implement; public opposition forced the German government to re-introduce statutory coverage of dental care in 1998.

Supplementary private coverage may be less problematic than substitutive or complementary coverage, because it covers the same services offered by statutory insurance or better amenities in hospital. However, it does give rise to concern if it provides faster access and if it distorts public resource allocation. As the Irish evidence presented above shows, the availability of supplementary private coverage can create perverse incentives for insurers and providers, leading to inequalities of access. If private insurance is to play a supplementary role without affecting access to health care for people covered by statutory insurance, boundaries between public and private provision need to be clearly defined.

2.8 Conclusions

Private health insurance requires careful regulation to address inefficiencies arising from asymmetrical information and to ensure access and consumer protection. Understanding the relationship between private insurance and the statutory system is central to the development of an appropriate regulatory framework. As a means of funding health care, private insurance tends to be regressive and can create financial barriers to access. Unless there are clear boundaries between public and private provision, private insurance may lower equity in the health system as a whole. Private insurers in Europe currently lack sufficient incentives to operate efficiently, which has implications for cost containment. However, efforts to encourage a more efficient use of resources may be unpopular if they result in restricted choice for consumers.

2.9 Policy considerations

- Regulation of private health insurance to ensure access and consumer protection, within the scope of its role in a given country and what is permitted under EU law, including a requirement that insurers provide clear, standardized information about prices, coverage and policy conditions.

- Ensuring clear boundaries between public and private provision so that private insurance does not distort public resource allocation, leading to inequalities of access.

- Removing tax subsidies for private health insurance that work to the detriment of the public sector.

3. Out-of-pocket payments

Individuals are required to contribute to the cost of health care at the point of use in most European countries. Out-of-pocket payments can take three broad forms (see Table 3). This synthesis focuses on direct forms of cost sharing (see Table 4). In many respects, the impact of direct and informal payments are likely to be broadly similar to the impact of cost sharing, although the effect on providers may differ.

Table 3. Types of out-of-pocket payment

Form	Definition
Direct payments	payments for goods or services obtained from the private sector in "pure private" transactions – for goods or services not covered by any form of pre-payment or insurance
Cost sharing/user charges	require the individual covered to pay part of the cost of care received
Informal payments	unofficial payments for goods or services that should be fully funded from pooled revenue; sometimes referred to as envelope or under-the-table payments.

In Europe cost sharing is most commonly applied to pharmaceuticals and dental care, but also to ambulatory and inpatient care in some countries *(30)*. The type and level of cost sharing applied varies considerably between countries.

Table 4. Direct forms of cost sharing

Form	Definition
Co-payment	the user pays a fixed fee (flat rate) per item or service
Co-insurance	the user pays a fixed proportion of the total cost, the insurer pays the remainder
Deductible	the user pays a fixed quantity of the costs, the insurer the remainder; deductibles can apply to specific cases or a period of time

Cost sharing is often accompanied by mechanisms to protect individuals' or households' finances (see Table 5).

Table 5. Protection mechanisms

Type	Examples
Explicit	reduced rates
	exemptions
	discounts for pre-paid charges
	annual caps on expenditure (out-of-pocket maximum)
	tax subsidies on expenditure
Implicit	complementary private health insurance
	substitution of private for public prescriptions by doctors
	substitution of generic for brand drugs by doctors and/or

pharmacists

Differential charges applied to one type of good or service to encourage the use of another type of good or service – for example, applying charges to brand drugs to encourage the purchase or use of generic drugs – can be used to increase efficiency.

3.1 Arguments for and against cost sharing

There are two main reasons for introducing cost sharing. First, to reduce excessive use of health services facilitated by health insurance, with a view to increasing efficiency and containing overall expenditure on health care. Second, to raise revenue for the health system, particularly in countries where public budgets are under pressure or funding health care through other means is politically sensitive *(31, 32)*. While this may lower equity in funding, equity in the receipt of benefits would be preserved if the revenue raised were targeted at poor people or otherwise used to reduce inequality in the system.

Neoclassical economists claim that the use of health services exceeds socially beneficial levels when health care costs are fully covered by insurance. Insurance reduces the marginal cost to individuals of using health services by effectively lowering the price of these services to zero. Consequently, insured individuals will make use of as much health care as they would if the health care were free – the core issue of moral hazard *(33, 4)*. Cost sharing restores the price signal negated by insurance, thereby combating the social welfare loss arising from this excess use. In economic terms, excess use does not refer exclusively to the use of services that are either unnecessary or potentially harmful *(32)*. Nevertheless, it is often argued that the existence of a price signal will selectively discourage the use of health services that provide little value to the individual and prevent the negative effects of consuming too much health care. The case for cost sharing therefore rests on the assumption that it will enhance micro-efficiency (more effective care) and macro-efficiency (contained costs) if it does not lower health status or lead to increased consumption of other health care resources. Cost sharing can also be used to encourage more cost-effective patterns of use, by conveying price signals to individuals and providers *(31)*.

However, the diverse nature of health care services and the existence of information asymmetries in the market have led some economists to question both the appropriateness of using the neoclassical model to measure welfare loss and the ability of cost sharing to achieve efficiency gains *(32, 34, 35)*. Arguments about inefficiency arising from excess use are based on the assumption that individuals are well-informed about their own need for health care and are able to distinguish between effective and ineffective treatment. Moreover, the neoclassical model assumes that supply and demand are independently determined, but because providers are usually better informed than patients, often acting as their agents, they have considerable potential to influence the type and quantity of health services used *(34)*. In practice, most decisions about the use of health services are made by providers and are not based on patients' assessments of potential benefits *(36)*. The neoclassical model also fails to take into account the travel, time and psychological costs that individuals may incur when using health services *(31)*.

3.2 Findings about cost sharing

This section summarizes evidence of the impact of cost sharing in North America and western Europe. Evidence from North America is based on two reviews of general cost sharing, predominantly in the United States *(37, 38)*, and a more recent review of the literature on pharmaceutical cost sharing in OECD countries (mainly studies from the United States and Canada) *(39)*. European evidence is based on recent reviews of general and pharmaceutical cost sharing in western Europe *(40, 41)*. The volume of research focusing on cost sharing in western Europe is low compared to research on cost sharing in North America. Although quality, in terms of methodological rigour, is more important than quantity, most European studies are observational in design, rather than randomized controlled trials or natural experiments, and do not employ sufficient controls, which lowers the strength of their evidence.

Equity in funding health care

Out-of-pocket payments tend to be a regressive means of funding health care in all countries *(13)*. However, they are less regressive in countries where people with low incomes are covered by comprehensive statutory health insurance and are exempt from cost sharing on the grounds of income, age or health status.

Access to health care

There is strong evidence to show that cost sharing leads to significant reductions in the use of health care in North America and western Europe *(37, 38, 39, 40, 41)*. Research also shows variation in the distribution of reduced use across the population, suggesting that people with low incomes are more responsive to price than others.

The experimental American studies of non-elderly populations found that while cost sharing reduced use of health services in all income groups, it was a much greater deterrent to seeking care among people with low incomes *(42, 43, 37)*. Lexchin and Grootendorst's review of pharmaceutical cost sharing found that non-poor and non-elderly people were least sensitive to price, older people with low incomes were more sensitive to price and, in all the studies reviewed, prescription charges for non-elderly people with low incomes resulted in considerable decreases in use *(39)*. However, one of the studies found that people in the lowest third of the income distribution used the fewest antibiotics, regardless of whether they were subject to cost sharing or not, which suggests that access to prescription drugs may also be restricted by non-financial barriers *(44)*.

Western European studies of the impact of cost sharing also support the finding that people with low incomes are most sensitive to price *(45, 46, 47, 48, 49)*.

Efficiency

One of the main arguments for cost sharing is that it can increase efficiency by reducing "unnecessary" use of health services and encouraging cheaper or more cost-effective health care. Theoretically, if cost sharing only reduces the use of unnecessary health care, then it will not have any impact on health status. However, evidence shows that cost sharing is non-discriminatory in its effect. The RAND study found that increased cost sharing had the same impact on the use of effective and ineffective or medically inappropriate health care, including the consumption of prescription drugs *(44, 50)*. And other North American studies support this finding *(37, 38, 39)*. Western European evidence concerning the ability of

prescription charges to reduce unnecessary use only is inconclusive, perhaps because studies are unable to distinguish between user and provider responses to cost sharing *(41)*.

There have been few attempts to measure how cost sharing affects health status. One exception is the RAND study, which found that there were only small differences in adult and child health status between those receiving "free" care and those subject to cost sharing, although the study was not able to measure the long-term health effects of reductions in use as a result of increased cost sharing *(51, 52, 53)*. However, there were three areas in which those with free care experienced better outcomes: diastolic blood pressure, corrected vision and the risk of dying for those for whom the risk had been higher. Moreover, the study found that cost sharing affected people with low incomes and those in poor health disproportionately. With regard to prescription drugs, the RAND study found that people with higher levels of education used more over-the-counter (OTC) drugs and spent a larger proportion of their drug budget on OTC products, suggesting that poorer people may face financial and other barriers to access to OTC drugs and that prescription charges may therefore lead to a greater overall negative effect on their health status *(54)*.

Lexchin and Grootendorst's review found that the impact of prescription charges on use of essential and discretionary drugs and other types of health care varied *(39)*. While several studies of older people did not find that prescription charges had any effect on the use of other health services, a Canadian study found that increases in prescription charges resulted in a 9% and 15% fall in the use of discretionary and essential drugs respectively, and that the fall in the use of essential drugs led to a 117% increase in hospitalizations and doctor visits and a 77% increase in emergency department visits *(55)*. The study also found that relatively modest increases in prescription charges targeted at welfare recipients resulted in larger reductions in the use of drugs than that observed for older people, and similar increases in the rate of adverse events. Rubin and Mendelson found that cost sharing adversely affected the health of unemployed and homeless people *(38)*.

Western European studies have not attempted to measure the impact of cost sharing on health status, although a number of observational studies provide weak evidence suggesting that cost sharing deters the use of preventive health care, particularly among individuals in higher risk groups *(56, 57, 58, 59, 60)*. With regard to acute care, a study of the effect of the introduction of a charge for accident and emergency services in Finland found that the charge decreased visit rates by approximately 27% for older children and 18% for younger children, and that the decrease in visit rates was also pronounced in less painful conditions *(61, 62)*. However, the authors concluded that the charge would not have serious long-term consequences for health status, given the magnitude and diagnosis-specificity of the reduction in demand.

Differential charges

Some countries use differential charges – sometimes referred to as tiered charges or selective cost sharing – to encourage a more rational use of prescription drugs. In western Europe they tend to be applied on the basis of a drug's therapeutic importance and/or severity of disease rather than on the basis of estimates of cost-effectiveness. Although there is no evidence of the impact of this type of differential charge on micro-efficiency, it is likely to be low.

Differential charges are also used to encourage users and providers to substitute generic for branded drugs. These are widely applied in North America, but not in western Europe *(63)*. However, evidence from North America suggests that the introduction of these differential

charges might increase micro-efficiency. American studies assessing the impact of charges applied exclusively to branded prescription drugs found that they led to a decrease in the use of branded drugs and an increase in the use of generic drugs *(64, 65, 66)*. Another recent study found that differential charges were also associated with a significant shift from non-preferred to preferred branded drugs *(67)*.

Cost containment

When considering cost sharing's potential to contain costs it is important to distinguish between its application to primary or ambulatory care and to health services that require referral or prescription. Overall, however, cost sharing is unlikely to contain health care costs in the long term because spending on health care is primarily driven by supply-side factors.

Several factors limit the potential for cost sharing to reduce or contain expenditure, so that its overall effect is difficult to estimate. The American studies reviewed by Rice and Morrison did not show that cost sharing reduced health care costs in the long term, particularly where insurers and providers already had strong incentives to contain costs and reduce the provision of unnecessary health care *(37)*. Western European studies show that cost sharing is unlikely to reduce health care expenditure in the long term. In Sweden, for example, significant increases in prescription charges in 1997 were found to have had a one-off effect on expenditure in 1998; since then expenditure has continued to grow at the same pace as prior to the increase *(68)*. Another study found that the Icelandic statutory health insurance scheme did not experience a substantial decrease in reimbursement costs after increases in prescription charges came into effect *(69)*. An analysis undertaken in a region of Italy found that the introduction of cost sharing was associated with a reduction in pharmaceutical expenditure, but that the impact declined over time *(70)*.

Cost sharing may fail to curb expenditure if reduced use of health services leads to the development of conditions that are more expensive to treat or if increased charges encourage inappropriate patterns of use. For example, the review by Lexchin and Grootendorst found that while prescription charges reduced the use of drugs, savings in drug costs were heavily outweighed by additional expenditure in other parts of the health system, such as doctor visits, inpatient care, emergency departments, nursing homes and mental health services – that is, not only was there no net gain in savings due to cost sharing, cost sharing may actually have increased spending on health care overall *(39)*. Evidence from France suggests that those without adequate health insurance coverage are more likely to make regular use of hospital emergency departments for routine care *(71)*.

The potential for cost sharing to curb expenditure may also be limited by providers' sensitivity to the financial incentives facing their patients. In several western European countries, providers have responded to pharmaceutical cost sharing by increasing the size of prescriptions *(41)*. However, European studies provide conflicting evidence about the way in which providers respond to cost sharing. While one study found that increases in prescription charges had a significant impact on GPs' prescription patterns *(72)*, others found that there was no effect on prescription *(45, 73)*, except to patients known to have low incomes *(74)*.

Where cost sharing affects providers' incomes, they may respond by increasing their prescription of treatments to patients subject to lower levels of cost sharing or free care. Evidence from the United States found that providers responded to cost sharing-induced reductions in use by inducing greater use among non-cost sharing patients *(75)*.

Levels of revenue

Evidence from the United Kingdom suggests that the revenue-raising potential of prescription charges is negligible, at least where extensive protection mechanisms are in place. It has been estimated that a 10% increase in the United Kingdom prescription charge would raise the revenue generated from 4.8% of NHS total expenditure on drugs in 1997 to 5.1% *(76)*. However, prescription charges only account for a small proportion of total expenditure on health care in the United Kingdom, which may not be the case in other countries. The NHS also exempts a large proportion of the population from prescription charges. Nevertheless, the additional transaction costs associated with the collection of prescription charges and the implementation of protection mechanisms are likely to reduce the net amount of revenue raised *(31)*. In the Netherlands the costs associated with implementing a new cost-sharing policy in 1997 were considered too high and it was abandoned in 1999 *(74)*. Fraud may also limit the extent to which cost sharing policies contain costs or raise revenue.

3.3 Discussion and current debates

As a consequence of persisting debate about the advantages and disadvantages of cost sharing, the introduction of charges for health care in western Europe has often been accompanied by opposition from politicians, health care professionals, other interest groups and the public *(30)*. In spite of at times widespread political opposition, however, governments across western Europe have increasingly applied cost sharing policies in the health sector, particularly to pharmaceuticals. This reflects a wider attempt to contain public expenditure on health care that began in the late 1980s and continued throughout the 1990s *(77)*. Pharmaceutical cost sharing has not been subject to as much political opposition as that in other areas, perhaps due to the fact that users of more expensive drugs – for example, those for chronic illnesses – are often exempt from charges. For similar reasons the market for OTC drugs has not stimulated significant political debate.

Policy-makers also face uncertainty as to what type of charge to use and how best to introduce mechanisms intended to protect more vulnerable groups of people from the financial burden imposed by cost sharing. Different types of charge can have different equity and efficiency implications. Marginal cost pricing (co-insurance) provides users with greater incentives to curb their use of health services. Any form of cost sharing that requires the user to pay first and be reimbursed at a later date may disadvantage people with low incomes. This effect is compounded when people are unable to afford complementary private health insurance. Deductibles may be more detrimental to equity than flat-rate fees or co-insurance because poorer people may not be able to afford the initial financial outlay required. At the same time, co-insurance involves a greater degree of financial risk, as the cost of the treatment, and therefore the amount the user is required to pay, may not be known in advance. However, the monetary amounts involved may be relatively small for prescription drugs, at least for non-heavy users. In some cases, flat-rate fees per prescription actually exceed the cost of the drugs prescribed. Where this is the case, providers may already resort to alternative means of protecting users, such as the substitution of private prescriptions for NHS prescriptions by GPs in the United Kingdom.

Evidence suggests that protection mechanisms should focus on people with low incomes and those in poor health. Exemption policies should be based on a clearly defined notion of need and consistently applied. The Swedish practice of imposing a prescription drug deductible on

all except those with diabetes provides an example of a poorly-designed exemption policy that exacerbates rather than allays concerns about equity *(78)*. Means-tested exemptions may reduce the regressivity of cost sharing. However, where exemptions essentially protect non-employed people, the burden of paying for health care will be borne by the working population, which probably already contributes significantly to health care.

The French government recently took action to protect the incomes of poorer people. The universal health coverage (CMU) benefits people on low incomes in two ways. First, since its introduction, the price of complementary private health insurance premiums in France is, in theory, no longer a barrier to access, except for people with incomes just above the threshold (see above). Second, CMU requires insurers to provide benefits in kind rather than cash. As a result, these low-income individuals are effectively exempt from making certain co-payments. Surveys reveal that the requirement to provide benefits in kind has increased equity in the French health system *(12)*. That the introduction of CMU has increased access to outpatient care is reflected in the average outpatient per capita expenditure of CMU beneficiaries (€695) compared to people of the same age and sex insured in the main health insurance scheme (€538) *(79)*. This suggests that the health status of CMU beneficiaries is low relative to others. Unfortunately, there is also evidence to suggest that not everyone who should have benefited from CMU has done so, particularly those who have not had access to information about the scheme.

Further debates about cost sharing concern its use as a demand-side mechanism to contain costs. It is difficult to estimate the full economic impact of cost sharing. Even though it appears to reduce the use of health care, there is little evidence to suggest that it is capable of stabilizing expenditure in the medium to long term or leading to sustained reductions in expenditure growth rates. This is partly due to implicit and explicit protection mechanisms employed by doctors and other health care professionals, but may also be due to changes in patterns of use in response to cost sharing – for example, the substitution of other health care goods and services – and changes in health status arising from inadequate access to care.

Many economists argue that supply-side mechanisms are much more effective in containing costs, largely because most health care costs are driven by supply factors and the health care market is subject to asymmetrical information. However, the political feasibility of imposing supply-side controls and influencing doctors' behaviour may explain why so many European governments continue to apply cost sharing to types of health care that are predominantly dependent on prescription or referral by licensed providers.

Finally, the implementation and monitoring of cost sharing policies and protection mechanisms require significant managerial and administrative capacity, both in terms of technical skills and financial resources.

3.4 Conclusions

Cost sharing is widely used in western European health systems to moderate demand and/or raise revenue. However, the theoretical case for cost sharing is weak, particularly when applied to health services requiring referral or prescription. In practice it shifts costs to individuals and reduces the use of both appropriate and inappropriate health care, which has negative implications for equity and efficiency. Because cost sharing creates financial barriers to access, it should be accompanied by mechanisms to protect heavy users of health care and

people in lower income groups. Exemption systems require administrative capacity and may generate significant transaction costs. Extensive exemptions combined with transaction costs limit the potential of cost sharing to raise revenue. There is little evidence to show that cost sharing is an effective means of containing costs. Rather, cost sharing may encourage inefficient patterns of health care use. However, some forms of cost sharing – for example, differential charges for pharmaceutical products – can be used to direct people away from the use of health care that is not cost-effective.

3.5 Policy considerations

- Exemption systems should be designed from a clearly-defined notion of need and applied consistently.
- Differential charges can be used to encourage more cost-effective usage.
- Efforts to contain costs should focus on health care supply rather than demand.

Annex I Glossary

Adverse selection: a situation in which individuals are able to purchase insurance at rates which are below actuarially fair rates, because information known to them is not available to insurers (see *information asymmetry*); the opposite of *risk selection.*

Community-rated premiums: premiums that are priced on the basis of the average expenditure incurred by a "community" (a firm or a geographically-defined area).

Complementary private health insurance: provides coverage for services excluded or not fully covered by *statutory health insurance.*

Compulsory private health insurance: private health insurance that must be purchased by the whole population (defined as residents or citizens).

Cost containment: measures taken to reduce expenditure or the rate of growth of expenditure or the unit cost of services.

Cost sharing: a provision of most health funding systems that requires the individual who is covered to pay part of the cost of health care received.

Coverage: a situation in which individuals' health care costs are financed by a third party such as the government or a sickness fund or a private health insurer; coverage can be partial or comprehensive.

Differential charges: charges that are applied at different rates for different goods and services, or to some goods and services but not others, in order to encourage or discourage the use of particular goods or services.

Dominant private health insurance: where private health insurance purchased on a voluntary basis is the main method of funding health care for the working population, for example in the United States.

Elasticity: elasticity of demand is a measurement of the change in demand for a good or service caused by a change in the price of that good or service (own-price elasticity), a change in the price of another good or service (cross-price elasticity), or a change in the income of the person demanding the good or service (income elasticity).

Information asymmetry: a difference in information between two parties; the neo-classical economic model assumes that buyers and sellers in a transaction have "perfect" or equal information, but in some markets information is often highly unequal and the resulting exchange may therefore result in an inefficient allocation of resources (market failure).

Lifetime cover: a situation in which individuals are covered for life, rather than on an annual basis.

Means-testing: a process in which individuals' eligibility for a particular benefit or exemption from charges is determined by their level of income.

Moral hazard: where services are not paid for directly by individuals, but by a third party, individuals may take risks or act in a way that increases their demand for health services and providers may over-supply health services.

Open enrolment: a regulatory requirement that prevents health insurers from rejecting applications for coverage.

Opting out: a situation in which individuals are allowed to choose between statutory and private health insurance coverage; if they choose the latter, they are exempt from contributing to the former.

Pooling: a process in which resources for health care are combined and transferred to purchasing organizations; pooling ensures that the risks of funding health care of undetermined need are borne by the entire pool and not by each contributor individually; it implies three redistributive functions: from the rich to the poor, from the healthy to the sick and from the productive to the unproductive stage of the life cycle.

Pre-existing conditions: medical problems already diagnosed or under treatment before an individual purchases private health insurance, that the insurer may not cover.

Preferred provider networks: a restricted list of providers to which all those covered by a particular insurer have access; if they use other providers, they may incur additional charges.

Product differentiation: a situation in which insurers offer consumers a range of insurance products and benefit packages.

Progressive distribution: a distribution in which the rich pay a larger proportion of their income than the poor.

Regressive distribution: a distribution in which the poor pay a larger proportion of their income than the rich.

Risk-rated premiums: premiums that are priced according to an individual's risk of ill health.

Risk selection: a process whereby an insurer tries to attract people with a lower-than-average expected risk of ill health and deter those with a higher-than-average expected risk in order to increase profits; the process can be explicit or covert.

Selective contracting: a situation in which purchasers are allowed to select the providers they intend to contract, rather than having to contract all providers.

Selective cost sharing: see *differential charges.*

Statutory health insurance: compulsory health insurance operated by statutory bodies or bodies carrying out a statutory function.

Statutory user charges: see *cost sharing.*

Substitutive private health insurance: provides coverage that would otherwise be available from the state; it is purchased by those who have opted out of *statutory health insurance* or are excluded from participating in some or all aspects of *statutory health insurance.*

Supplementary private health insurance: usually covers the same range of services as *statutory health insurance*, which is why it is often referred to as "double coverage"; often provides increased choice of provider and faster access to health services.

Tax subsidy: an exemption from tax liability on a given amount of income used to purchase particular goods or services such as private health insurance; the value to the individual or corporation concerned is in retaining the income that would otherwise have been paid in taxes on such an amount.

Tiered charges: see *differential charges.*

Transaction costs: the costs incurred in the process of negotiating between buyer (third party payer/purchaser) and seller (provider).

User charges: generic term for official payments made by individuals at the point of use; in this synthesis report it is used interchangeably with *cost sharing*.

Vertical integration: compulsory or voluntary health insurance or third-party funding in which both the insurance and provision of health care is supplied by the same organization.

References

1 World Health Organization. Health for all database. Copenhagen, WHO Regional Office for Europe, 2003.

2 Organisation for Economic Co-operation and Development. Health Data 2002. Paris.

3 Barr N. *The economics of the welfare state*. Oxford University Press, 1998.

4 Pauly MV. The economics of moral hazard: comment. *American economic review,* 1968, 58, 3:531-537.

5 Maynard A, Dixon A. Voluntary health insurance and medical savings account: theory and experience. In *Funding health care: options for Europe*. Mossialos A et al., eds. Buckingham, Open University Press, 2002.

6 Kaiser Family Foundation. Kaiser Commission on Medicaid and the uninsured: the uninsured and their access to health care, *http://www.kff.org/content/2003/142004/142004.pdf*, accessed 17 July 2003.

7 Committee on the Consequences of Uninsurance. *Insuring America's health: principles and recommendations*. Washington DC, Institute of Medicine, 2004.

8 Pauly MV, Herring B. Expanding coverage via tax credits: trade-offs and outcomes. *Health affairs*, 2001, 20, 1: 9-26.

9 Kaiser Family Foundation. Trends and indicators in the changing health care market place, 2002, *http://www.kff.org/content/2002/3161/marketplace2002_finalc.pdf*, accessed 17 July 2003.

10 Minder A, Schoenholzer H, Amiet M. *Health care systems in transition: Switzerland*. Copenhagen, European Observatory on Health Care Systems, 2000.

11 Mossialos E, Thomson S. Voluntary health insurance in the European Union: a critical assessment. *International journal of health services,* 2002, 32, 1:19-88.

12 Mossialos E, Thomson S. Voluntary health insurance in the European Union: report prepared for the Directorate General for Employment and Social Affairs of the European Commission, available online at: *http://europa.eu.int/comm/employment_social/soc-prot/social/index_en.htm*. London School of Economics and Political Science, 2002.

13 Wagstaff A et al. Equity in the finance of health care: some further international comparisons. *Journal of health economics,* 1999, 18, 3:263-290.

14 Blanpain N, Pan Ké Shon J-L. L'assurance complémentaire maladie: une diffusion encore inégale. *INSEE première* 1997, 523.

15 Bocognano A et al. Which coverage for whom? Equity of access to health insurance in France. Paris, CREDES, 2000.

16 Breuil-Genier P. Généraliste puis spécialiste: un parcours peu fréquent. *INSEE première*, 2000, 709.

17 Rajmil L et al. The quality of care and influence of double health care coverage in Catalonia. *Archives of disease in childhood,* 2000, 83, 3:211-214.

18 Wiley MM. Reform and renewal of the Irish health care system: policy and practice. In *Budget perspectives: proceedings of a Conference held on 9 October 2001*. Dublin, The Economic and Social Research Institute, 2001.

19 Van Doorslaer E, Koolman X, Puffer F. Equity in the use of physician visits in OECD countries: has equal treatment for equal need been achieved? ECuity II Project Working Paper No 3. Rotterdam, 2001.

20 Boccuti C, Moon M. Comparing Medicare and private insurers: growth rates in spending over three decades. *Health affairs*, 2003, 22, 2: 230-237.

21 European Commission. Council Directive 92/49/EEC of 18 June 1992 on the coordination of laws, regulations and administrative provisions relating to direct insurance other than life assurance and amending Directives 73/239/EEC and 88/357/EEC (third non-life insurance directive). *Official journal of the European Communities* L 228(11 August 1992):1-23.

22 Evans RG. Financing health care: taxation and the alternatives. In: Mossialos E et al., eds. *Funding health care: options for Europe*. Buckingham, Open University Press, 2002.

23 Emmerson C, Frayne C, Goodman A. Should private medical insurance be subsidized? *Health care United Kingdom,* 2001, 51, 4:49-65.

24 Gruber J and Levitt L. Tax subsidies for health insurance: costs and benefits. *Health affairs*, 2000, 19: 72-85.

25 Gruber J. The impact of the tax system on health insurance coverage. *International journal of health care finance and economics,* 2001, 1: 293-304.

26 Puig-Junoy J. Managing risk selection incentives in health sector reforms. *International journal of health planning and management,* 1999, 14:287-311.

27 Barrientos A, Lloyd-Sherlock P. Reforming health insurance in Argentina and Chile. *Health policy and planning, 2000,* 15, 4:417-423.

28 Sapelli C. Risk segmentation and equity in the Chilean mandatory health insurance system. *Social science and medicine,* 2004, 58, 2:259-265.

29 Sandier S et al. France. In: Dixon A, Mossialos E, eds. *Health care systems in eight countries: trends and challenges. Report commissioned by the Health Trends Review, HM Treasury*. London, European Observatory on Health Care Systems, 2002.

30 Robinson R. User charges for health care. In: Mossialos E, et al., eds. *Funding health care: options for Europe*. Buckingham, Open University Press, 2002.

31 Brandt A et al., eds. *Cost-sharing in health care*. Berlin, Springer-Verlag, 1980.

32 Kutzin J. The appropriate role for patient cost sharing. In: Saltman RB, Figueras J, Sakellarides C, eds. *Critical challenges for health care reform in Europe*. Buckingham, Open University Press, 1998.

33 Arrow KJ. Uncertainty and the welfare economics of medical care. *American economic review*, 1963, 53, 5:941-973.

34 Evans RG. *Strained mercy: the economics of Canadian health care*. Toronto, Butterworths, 1984.

35 Rice T. *The economics of health reconsidered*. Chicago, Health Administration Press, 1998.

36 Mooney G. *Key issues in health economics*. Hemel Hempstead, Harvester Wheatsheaf, 1994.

37 Rice T, Morrison KR. Patient cost sharing for medical services: a review of the literature and implications for health care reform. *Medical care review*, 1994, 51, 3:235-287.

38 Rubin RJ, Mendelson DN. Cost sharing in health insurance. *New England journal of medicine*, 1995, 333, 11:733-734.

39 Lexchin J, Grootendorst P. *The effects of prescription drug user fees on health services use and health status: a review of the evidence*. University of Toronto Press, 2002.

40 Mossialos E, Thomson S. Access to health care in the European Union: the impact of user charges and voluntary health insurance. In: Gulliford M, Morgan M, eds. *Access to health care*. London, Routledge, 2003.

41 Thomson S, Mossialos E. Influencing demand for drugs through cost sharing: the impact of prescription charges on efficiency and equity in western European health care systems. In: Mossialos E, Mrazek M, Walley T, eds. *Regulating the cost and use of pharmaceuticals in Europe: containing costs while improving efficiency, quality and equity*. Buckingham, Open University Press, 2004.

42 Scitovsky A, Snyder N. Effect of co-insurance on use of physician services. *Social security bulletin*, 1972, 35, 6:3-19.

43 Manning WG et al. Health insurance and the demand for medical care: evidence from a randomized experiment.' *American economic review*, 1987, 77, 3:251-277.

44 Foxman B et al. The effect of cost sharing on the use of antibiotics in ambulatory care: results from a population-based randomized controlled trial. *Journal of chronic disease,* 1987, 40, 5:429-437.

45 Van Doorslaer E. The effects of cost sharing on the demand for prescription drugs in Belgium. *Acta hospitalia,* 1984, 24, 3:69-81.

46 Klavus J. User fees and fee policy in health care. In: Heikkilä M, Uusitalo H, eds. *The cost of cuts. Studies on cutbacks in social security and their effects in the Finland of the 1990s.* Helsinki, STAKES (National Research and Development Centre for Welfare and Health, 1997:119-129.

47 Elofsson S, Unden AL, Krakau I. Patient charges - a hindrance to financially and psychosocially disadvantage groups seeking care. *Social science and medicine,* 1998, 46, 10:1375-1380.

48 Jourdain A. Equity of a health system. *European journal of public health,* 2000, 10, 2:138-142.

49 Burström B. Increasing inequalities in health care utilisation across income groups in Sweden during the 1990s? *Health policy,* 2002, 62, 2:117-129.

50 Lohr KN et al. Effect of cost sharing on use of medically effective and less effective care. *Medical care* 1986, 24 (9 Suppl):S31-38.

51 Brook RH et al. Does free care improve adults' health? Results from a randomized controlled trial. *New England journal of medicine,* 1983, 309, 23:1426-1434.

52 Lurie N et al. Termination from Medi-Cal--does it affect health? *New England journal of medicine,* 1984, 311(7): 480-4.

53 Lurie N et al. Termination of Medi-Cal benefits. A follow-up study one year later. *New England journal of medicine,* 1986, 314, 19:1266-1268.

54 Leibowitz A. Substitution between prescribed and over-the-counter medications. *Medical care,* 1989, 27, 1:85-94.

55 Tamblyn R et al. Adverse effects associated with prescription drug cost-sharing among poor and elderly persons. *Journal of the American Medical Association,* 2001, 285, 4:421-429.

56 O'Grady KF et al. The impact of cost sharing on emergency department use. *New England journal of medicine,* 1985, 313, 8:484-490.

57 Laidlaw DP et al. The sight test fee: effect on ophthalmology referrals and rate of glaucoma detection. *BMJ,* 1994, 309:634-636.

58 Christensen B. Characteristics of attenders and non-attenders at health examinations for ischaemic heart disease in general practice. *Scandinavian journal of primary health care,* 1995, 13, 1:26-31.

59 Christensen B. Payment and attendance at general practice preventive health examinations. *Family medicine,* 1995, 27, 8:531-534.

60 Nexoe J, Kragstrup J, Ronne T. Impact of postal invitations and user fee on influenza vaccination rates among the elderly. A randomized controlled trial in general practice. *Scandinavian journal of primary health care,* 1997, 15, 2:109-112.

61 Ahlamaa-Tuompo J, Linna M, Kekomaki M. User charges and the demand for acute paediatric traumatology services. *Public health,* 1998, 112, 5:327-329.

62 Ahlamaa-Tuompo J, Linna M, Kekomaki M. Impact of user charges and socio-economic environment on visits to paediatric trauma unit in Finland. *Scandinavian journal of social medicine,* 1998, 26, 4:265-269.

63 Mrazek MF, Mossialos E. Increasing demand while decreasing costs of generic medicines. *Lancet,* 2000, 356, 9244:1784-1785.

64 Weiner JP et al. Impact of managed care on prescription drug use. *Health affairs (Millwood),* 1995, 10, 1:140-154.

65 Hong SH, Shepherd MD. Outpatient prescription drug use by children enrolled in five drug benefit plans. *Clinical therapeutics,* 1996, 18, 3:528-545.

66 Motheral BR, Henderson R. The effect of a copay increase on pharmaceutical utilization, expenditures, and treatment continuation. *American journal of managed care,* 1999, 5, 11:1383-1394.

67 Rector TS et al. Effect of tiered prescription copayments on the use of preferred brand medications. *Medical care,* 2003, 41, 3:398-406.

68 Persson A, Guzelgun Z. Taxes, premiums, user charges: financing from the point of view of consumers. *Developments in health economic and public policy,* 1998, 7:255-272.

69 Almarsdottir AB, Morgall JM, Grimsson A. Cost containment of pharmaceutical use in Iceland: the impact of liberalization and user charges. *Journal of health services research and policy,* 2000, 5, 2:109-113.

70 Hanau C, Rizzi D. Econometria dei provvedimenti pubblici sull'assistenza farmaceutica: il caso dell'Emilia Romagna. *Economia pubblica,* 1986, 3:177-183.

71 Lang TA et al. Using the hospital emergency department as a regular source of care. *European journal of epidemiology,* 1997, 13:223-228.

72 Steffensen FH et al. Changes in reimbursement policy for antibiotics and prescribing patterns in general practice. *Clinical microbiology and infection,* 1997, 3, 6:653-657.

73 Starmans B et al. The effect of a patient charge and a prescription regulation on the use of antihypertension drugs in Limburg, the Netherlands. *Health policy*, 1994, 26, 3:191-206.

74 Kasje WN et al. Dutch GPs' perceptions: the influence of out-of-pocket costs on prescribing. *Social science and medicine*, 2002, 55, 9:1571-1578.

75 Fahs MC. Physician response to the United Mine Workers' cost-sharing program: the other side of the coin. *Health services research*, 1992, 27, 1:25-45.

76 Hitiris T. Prescription charges in the United Kingdom: a critical review. *Discussion Papers in Economics* No 2000/04. University of York Press.

77 Mossialos E, Le Grand J. Cost containment in the EU: an overview. In: Mossialos E, Le Grand J, eds. *Health care and cost containment in the European Union*. Aldershot, Ashgate, 1999.

78 Hjortsberg C, Ghatnekar O. Health care systems in transition: Sweden. Copenhagen, European Observatory on Health Care Systems, 2001.

79 Girard I, Merlière J. La consommation de soins de ville des bénéficiaires de la CMU au terme d'une année de remboursements. *Point STAT*, 2001, 31:1-8.