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on Health Care Systems

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The European Observatory on Health Care Systems is a partnership between the World Health Organization Regional Office for Europe, the Government of Greece, the Government of Norway, the Government of Spain, the European Investment Bank, the Open Society Institute, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

This policy brief is intended for policy-makers and those working on funding options for health care systems.

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Policy brief

Funding health care: options for Europe

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Funding health care: options for Europe[1]

Introduction

Health care systems face ever changing and often competing demands for resources. For a health care system to be sustainable it must be able to pay for investment in buildings and equipment, training and remuneration of personnel and for drugs and other consumables. How these financial resources are generated and managed – the process of collecting revenue and pooling funds – raises important issues for policy-makers and planners. This policy brief aims to summarise these issues from an international perspective and consider how funding systems can be designed in order to achieve policy objectives. It looks first at the different sources of revenue and then at the impact of different systems of funding on specific objectives related to social policy, politics and economics. Finally, it considers implementation issues and some of the wider dimensions that policy-makers need to consider.

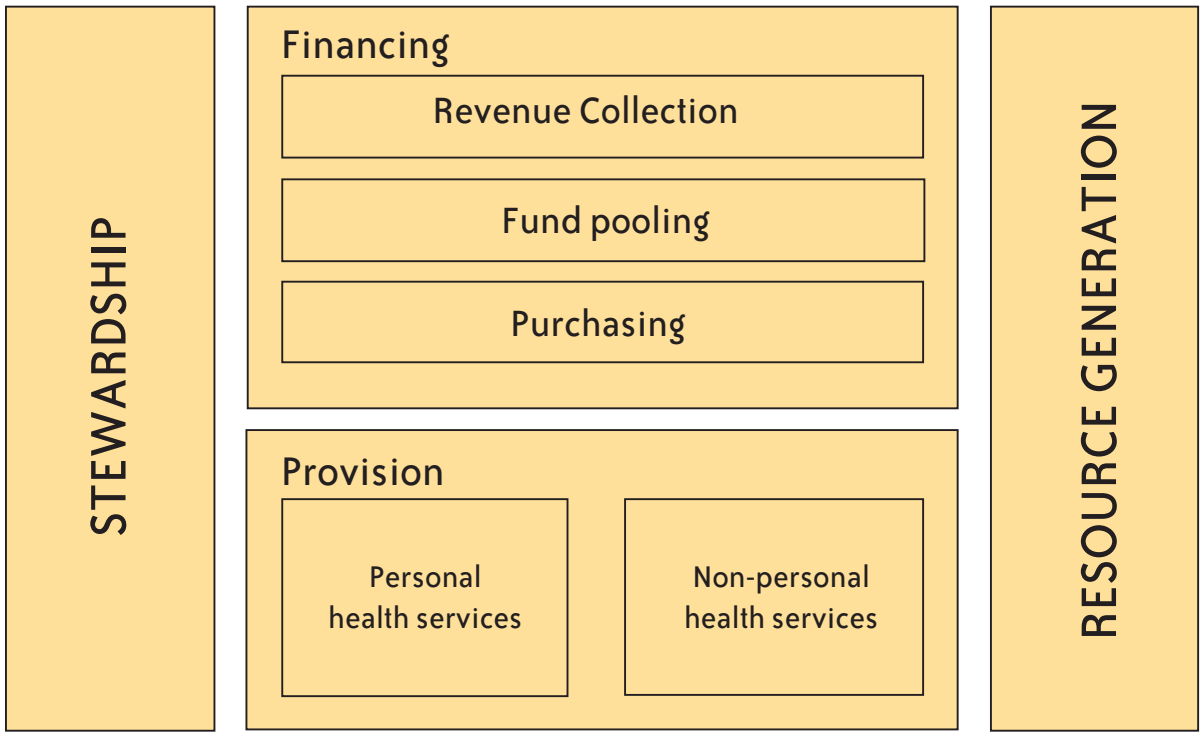
What are the different sources of revenue?

Confusion often arises in debates about health care systems because the systems are crudely defined as either social health insurance systems or tax-financed systems. This classification conflates the method of revenue collection with historical patterns of purchasing and provision of health care. If we understand revenue collection, pooling, purchasing and provision as distinct functions (see Fig. 1) it should be possible to analyse each of their impacts separately. This brief mainly focuses on revenue collection (and to a lesser extent the associated risk pooling arrangements).

There are basically four main methods of revenue collection: taxation, social insurance contributions, voluntary insurance premia and out-of-pocket payments or user charges. Taking each of these in turn, we define the terms and highlight their main features and the variations possible.

[1] All the issues contained in this briefing are explored in more detail in MOSSIALOS, E., DIXON A., FIGUERAS J.and KUTZIN J., EDS. *Funding health care: options for Europe.* European Observatory on Health Care Systems Series. Buckingham, the UK: Open University Press, 2002. Where appropriate we make cross-references to information in this book.

Fig. 1. Functions of health systems



Source: MURRAY , C. J. and FRENK J. A framework for assessing the performance of health systems. *Bulletin of the World Health Organization,* **78**(6): 717–31 (2000).

Taxation

Types of taxation:

- Direct or indirect
- General or hypothecated
- National or local.

Taxes are levied by government authorities and are compulsory for all legal residents. They can be levied on individuals, households and firms (direct taxes) or on transactions and commodities (indirect taxes). Income tax is a direct tax that is usually banded with different rates applied to different income levels. Some forms of income may be tax exempt (such as interest on personal savings for medical expenses) and some forms of expenditure may be tax deductible (such as out-of-pocket payments for health or voluntary health insurance premia).

Taxes may be general in which case they are usually pooled together and allocated according to budgetary decisions. Alternatively, a tax may be earmarked (hypothecated) for a specific purpose such as health care. Earmarking can either be hard (i.e. expenditure is determined by revenue) or soft (i.e. as a top-up to existing spending whereby deficits could be covered by further tax allocations). For example, a fixed proportion of the *contribution sociale generale* (CSG) in France is earmarked for health. The CSG, however, only accounts for part of total expenditure and deficits have historically been met by additional public funds.

Taxes may be collected and set by national, regional or local bodies. If tax-raising powers are devolved, a separate mechanism may exist

for redistributing resources between localities. Where revenue collection is devolved, the responsibilities for purchasing and provision are also usually devolved. Local taxes account for a significant proportion of health expenditure in Bulgaria, Denmark, Finland, Italy (since 2000), Norway and Sweden.

Social health insurance[2]

Basic features of social health insurance:

- Income related contribution with variable or uniform rates;
- Mandatory for all or most of the population;
- Proportion of contribution paid by employer, employee or other agent;
- Single or multiple funds;
- Assigned membership or choice of insurer;
- Upper and lower income thresholds for contributions.

Social health insurance contributions are legally mandatory for all or part of the population, they are not related to risk and they are kept separate from other legally mandated taxes or contributions. They are usually levied by a designated (statutory) third-party payer with some independence from government authorities. Contributions are usually levied as a proportion of income. In theory, contributions could be levied at different rates according to income, but in practice they are not. There may be a uniform rate (e.g. the Netherlands) or contribution rates may vary between insurance funds (e.g. Germany). In Austria contribution rates vary by type of employment. Contribution rates may be set by the government (e.g. France and the Netherlands), an association of insurance funds (e.g. Luxembourg) or individual funds (e.g. Germany). There may be upper and lower income thresholds above and below which contributions are not levied (e.g. Austria, Germany and Luxembourg). Employers and employees usually share the contributions; however, the proportion each pays varies widely between countries.

Social health insurance contributions may be collected by individual funds (as in Germany), an association of funds (as in Luxembourg), a central fund (as in the Netherlands) or local branches (as in France). There may be a single national fund for all eligible persons or multiple funds. Membership may be assigned either according to occupation and/or region (as in Austria) or the population may have a free choice of fund (as in Belgium, Czech Republic, Germany and the Netherlands). Where funds compete there is usually a mechanism to ensure risk pooling between funds, either through the central allocation of funding (as in the Netherlands) or reallocation between funds (as in Germany).

Eligibility is usually based on contribution status. However, where health care coverage is a universal right (as in France and many eastern European countries), eligibility may be based on residency and/or citizenship. Non-working dependents may be covered either through the working spouse or parents' insurance. Contributions may be made on behalf of non-working members by the state (through tax transfers) or from other sources, e.g. pension funds and unemployment funds.

Some of the population who are not mandatory members of social health insur-

[2] See Table 3.1 in the book *Funding health care: options for Europe*, for a summary of the main features of social health insurance in western Europe and Table 4.3 for key features of social health insurance in eastern Europe available on www.observatory.dk under "studies".

ance may be voluntary members, i.e. have the right to opt-in (as in Germany). Those not eligible for membership of social health insurance may be covered through alternative mechanisms such as a parallel tax finance system of health care or social assistance or through the compulsory or voluntary purchase of voluntary health insurance.

Box 1

Social health insurance funding in eastern Europe

The macroeconomic context in a number of countries in eastern Europe has meant that the ability to generate a significant proportion of health care expenditure from social health insurance contributions has been limited.

In addition, factors such as the size of the informal economy and the size of the agricultural labour force have made compliance difficult. Finally, the high levels of unemployment mean that the proportion of the population in formal employment is low, thus creating a very narrow revenue base from which to draw contributions.

Due to the historical legacy of the communist era, many of the countries had an enshrined constitutional right to health care for all. This meant that from the outset entitlements to health care benefits were universal and unrelated to contribution status. This contrasts with the gradual expansion of social health insurance in western Europe during the twentieth century to different population groups as economic development progressed. Thus, in eastern Europe there were reduced incentives to contribute whilst at the same time large expenditures for the funds.

In higher income countries (namely Croatia, the Czech Republic, Estonia, Hungary, Slovakia and Slovenia) social insurance appears to have been an effective way of mobilizing resources for the health sector. Lower income countries in the region such as Albania, Romania and Kazakhstan, with less institutional capacity and little formal employment, found that payroll taxes were not a viable alternative to general taxation. Furthermore, the lack of strong strategic purchasing meant administrative efficiency, expenditure control and quality did not necessarily improve. Moving from general taxes to social insurance or increased out-of-pocket payments reduced the equity of health care financing. Finally, the delegation of responsibility for revenue collection to quasi-state agencies or independent insurance funds has created significant challenges for the state in terms of regulation and stewardship of the health care system.

Voluntary health insurance[3]

Types of voluntary health insurance:

- Substitutive, supplementary or complementary;
- For-profit or non-profit insurers;
- Individually purchased or employer purchased;
- Risk rated, community rated or group rated.

Voluntary health insurance is health insurance that is taken up and paid for at the discretion of individuals or employers on behalf of individuals. It can be offered by public and quasi-public bodies or by for-profit or not-for-profit private organizations (Mossialos and Thomson 2002). In most European Union (EU) countries voluntary health insurance premia account for less than 10% of total expenditure on health, except in France (12.2%) and the Netherlands (17.7%). In fact, in Belgium, Denmark, Finland, Greece, Italy, Luxembourg, Portugal, Spain, Sweden and the United Kingdom it accounts for well under 5% of total expenditure. In the countries of central and eastern Europe, voluntary health insurance has a small market share. However, the role of voluntary health insurance is important in policy terms, particularly its relationship with social insurance and how it is regulated.

Private health insurance may be an individual's sole form of insurance cover (substitutive); it may provide full or partial coverage for services that are excluded or not fully covered by the statutory health system (complementary) or it may increase subscriber choice of provider and improve (speed of) access (supplementary). In Germany, people earning over € 3375 monthly have the choice of remaining in the social insurance scheme or opting out. Of those who have this choice, less than one in four choose to opt out of the statutory scheme.

Premia are usually risk rated based on an assessment of the risk of an individual, all employees of a firm (group rated) or all residents of a defined geographical area (community rated). Risk equalization between insurers may be utilised to prevent insurers from selecting only those with low risk (known as cream skimming).

Tax relief (i.e. an expenditure allowed to be deducted from gross income before tax is charged) or a tax credit (deduction from an individual's or household's tax liability) may be used to encourage the purchase of voluntary health insurance. Tax expenditure subsidies, however, result in a net tax revenue loss and should be considered as expenditure.

Other options for regulating private insurers include: open enrolment (i.e. requirement that insurers underwrite all applicants for insurance); lifetime cover (i.e. requirement that insurers underwrite policies for life, rather than annual renewals); or standard benefits (i.e. requirement that minimum benefits be included in all insurance policies). EU legislation prevents Member States from regulating prices and benefits of voluntary health insurance, except substitutive health insurance[4].

[3] Voluntary health insurance is also sometimes referred to as private health insurance or private medical insurance. As some insurance policies are offered by public bodies the term voluntary health insurance is preferred.

[4] Pre-accession countries also need to consider the implications of this when reforming or introducing the regulation of voluntary health insurance.

Out-of-pocket payments

Out-of-pocket payments:

- Formal or informal payments;
- Co-payment, co-insurance, deductible;
- Exemption schemes;
- Differential rates in some countries;
- Annual out-of-pocket limit.

In most countries patients are required to make a contribution to the cost of health care. The rationale behind user charges is twofold: to reduce unnecessary or excessive use of services and to raise additional revenue. The former relies on health care being price elastic (that is that by increasing the price of services people will stop using them); the latter relies on health care being price inelastic (that is despite increasing the price, people will carry on using health services). However, due to provider moral hazard (excessive supply of health care services: see Box 2) user charges tend to result in a higher intensity of service use for each patient treated. Furthermore, user charges tend to deter use of both necessary and unnecessary services.

Some out-of-pocket payments cover part of the cost of services otherwise covered by public or private insurance. Some are for services that are fully excluded from public and private insurance. Others are for services which are in theory covered but for which access is difficult due to long waiting times or the poor distribution of facilities. In these circumstances patients may choose to purchase services directly in the private sector. Finally, in some countries patients are asked to make additional payments in the public sector for services that should be fully covered, called informal payments, envelope payments or under-the-table payments.

Formal user charges

The levels of user charges and the services to which they are applied vary considerably between countries. Charges may be levied as a flat-rate payment for each service (co-payment), a percentage of the total cost of the service (co-insurance) or a fixed amount up to which the patient is liable after which the insurer covers the remaining cost (deductible). An annual out-of-pocket limit may be defined up to which the patient is liable for all costs and after which the insurer covers any further expenditure in that year. In order to ensure equal access to needed medical care, exemption schemes are common. Exemptions from user charges may be means tested (e.g. income related); based on disease categories (e.g. diabetes or other chronic illnesses); for particular products (e.g. contraceptives) or population sub-groups (e.g. pensioners or the unemployed). User charges may also be set at variable rates for different services in order to "steer" patients to more cost-effective services, e.g. to use the gatekeeping primary care doctor, or generic drugs.

Informal payments

Informal payments take a number of forms and may exist for a number of reasons. They range from the *ex post* gift in-kind to the *ex ante* cash payment. These payments or gifts may be part of the culture, may be due to the lack of a cash economy or a lack of finances to pay health care workers and provide drugs and basic equipment to treat patients or simply due to weak governance. At their worst they may be a form of corruption, undermine official payment systems and reduce access to health services.

Data on the extent of informal payments in a selection of eastern European countries suggest they are widespread in both ambulatory and hospital care. Experience from low

Box 2

User charges in western Europe

User charges have been advocated in western Europe as a source of additional revenue when citizens are not prepared to fund health services through increased taxation or contributions. It is also argued that in the absence of user charges, where patients have third-party insurance (public or private), there will be excessive demand for the covered health services, thereby contributing to escalating expenditure. This is generally referred to as the problem of moral hazard.

Evidence on cost-sharing schemes in the EU suggests that they can be complex and expensive to implement and administer. Therefore, they may have a limited role as a method of generating additional revenue. This is likely to be especially true if efforts are made to preserve equity and social solidarity through exemptions from payment for vulnerable groups.

Cost-sharing has been shown through empirical studies to deter both appropriate and inappropriate utilization. Finally, user charges disproportionately affect lower-income groups as observed through changes in their utilization of services. In addition, studies show a similar impact on vulnerable groups, such as the elderly and people with chronic diseases, independently of their income. This suggests that cost-sharing as a means of reducing demand or raising revenue may not be as cost-effective as alternative policy instruments.

Cost-sharing policies also have significant political implications. In the United Kingdom, for example, the National Health Service was founded in 1948 on the principle of services being free at the point of use. Early decisions to introduce user charges for spectacles in the 1950s caused considerable political turmoil and ministerial resignations. Subsequent proposals to increase charges have generally met widespread resistance. Increases in user charges in the 1990s in Germany became the source of intense political debate particularly during the federal election campaign of 1998 and may have contributed to the defeat of the Conservative-Liberal coalition. In Sweden, user charges are levied across the board irrespective of incomes. In order to protect individuals, particularly those with chronic diseases, from unacceptably high expenditure there is a maximum annual out-of-pocket limit. After this ceiling is reached no further charges are imposed. The lack of exemptions has raised equity concerns and political debate continues about reforming the system of charges.

and middle income countries outside Europe suggests that formalizing payments and establishing systems of pre-payment (or insurance) is extremely difficult and requires government and technical capacity, and recognition of external constraints. Informal payments do exist in western Europe; however, these are currently under-researched.

The health care funding mix in Europe

Each country in the European Region has a unique mix of sources of health care revenues. Fig. 2 shows data on the current composition of health care revenues in a number of countries in eastern and western Europe at the end

of the 1990s.[5] There are four western European countries where health care expenditure is predominantly funded from social or compulsory insurance contributions:

- France
- Germany
- Luxembourg
- Netherlands.

Belgium and Switzerland, which are usually classified as having social health insurance systems, and Greece whose system is normally classified as tax funded, rely on a mix of social health insurance contributions and taxation. The nine countries which rely predominantly on taxation are:

- Denmark
- Finland
- Ireland
- Italy
- Norway
- Portugal
- Spain
- Sweden
- United Kingdom.

However, Fig. 2 does not reflect fully the tax transfers which exist within social health insurance systems. In western Europe, only Greece, Italy, Portugal and Switzerland have 30% or more of total expenditure on health from private sources (mostly out-of-pocket payments).

In eastern Europe, there are seven countries which fund health care predominantly from taxation:

- Albania
- Kazakhstan
- Latvia
- Moldova
- Poland
- Romania
- Russian Federation.

There are six countries which rely predominantly on social insurance contributions:

- Czech Republic
- Croatia
- Estonia
- Hungary
- Slovakia
- Slovenia.

In Armenia, Azerbaijan, Georgia and Tajikistan forms of pre-payment have almost totally collapsed and health care is predominantly funded by out-of-pocket payments. In Moldova and Kyrgyzstan out-of-pocket payments account for more than 40% of total expenditure on health.

Weighing up the options

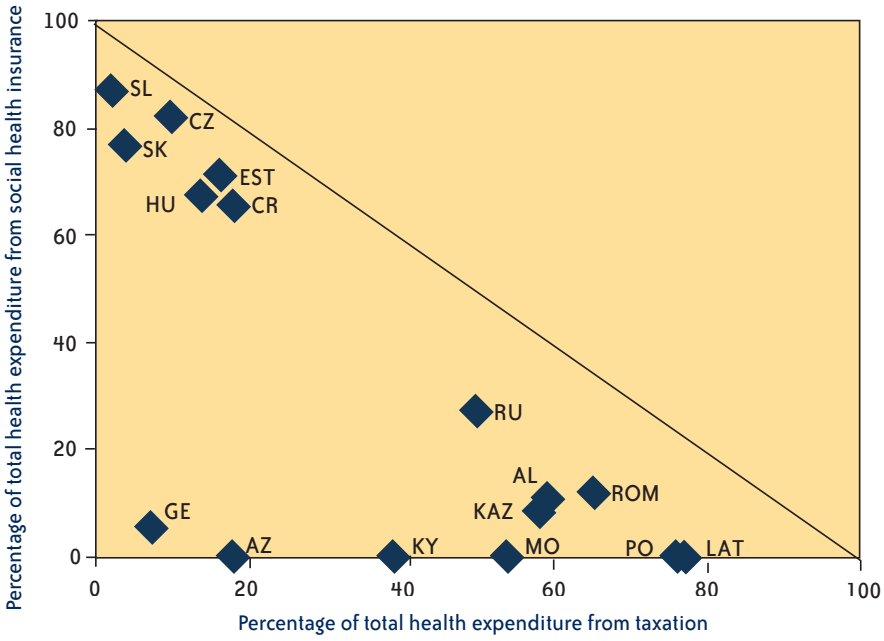
The challenge for policy-makers then is to ensure that the mix of revenue sources enables sufficient funds to be generated whilst at the same time meeting a number of policy objectives. Here, we briefly answer a number of questions in relation to the objectives of equity and efficiency. Clearly, the overall impact of health care funding will depend on how it is designed and how the different sources are combined . For example, a system funded predominantly from progressive taxes might still have problems with access if user charges are applied without exemption to a wide range of services.

1. Is the funding system progressive?

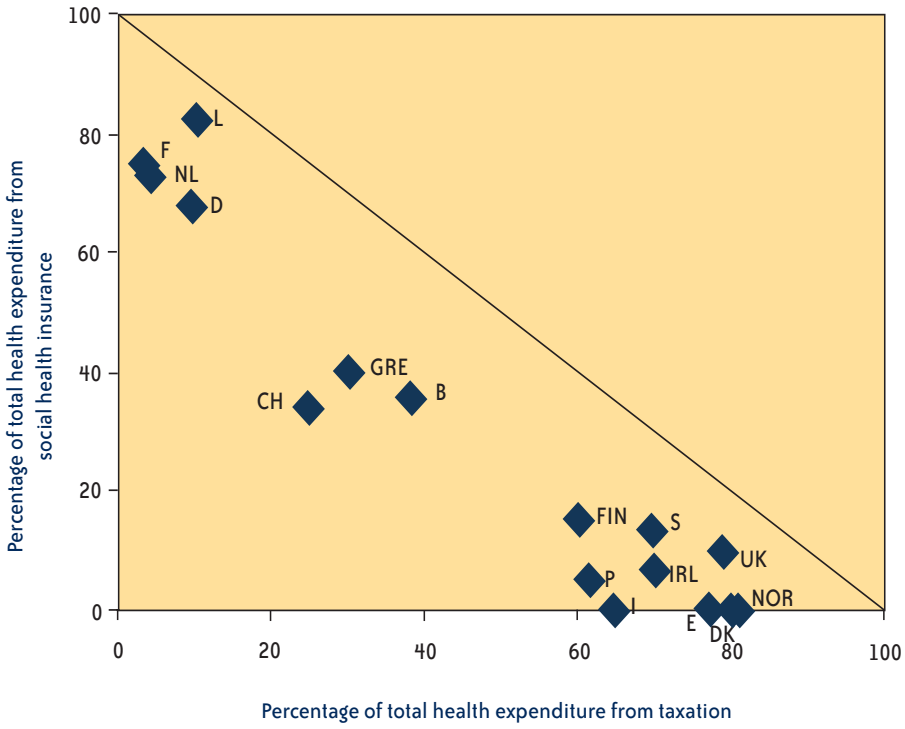
Whether a funding system is progressive or not depends to what extent people on differ-

[5] These data are likely to have changed. For example, since 1998 Poland has implemented a 7.5% social health insurance contribution.

Fig. 2. Percentage of total expenditure on health from taxation, social health insurance and other sources (includes voluntary health insurance and out-of-pocket payments) in selected European countries.



Key: AL: Albania; AZ: Azerbaijan; CR: Croatia; CZ: the Czech Republic; ES: Estonia; GE: Georgia; HU: Hungary; KAZ: Kazakhstan; KY: Kyrgyzstan; LAT: Latvia; MO: Republic of Moldova; PO: Poland; ROM: Romania; RU: the Russian Federation; SK: Slovakia; SL: Slovenia.



Key: B: Belgium; CH: Switzerland; D: Germany; DK: Denmark; E: Spain; F: France; FIN: Finland; GRE: Greece; I: Italy; IRL: Ireland; NL: Netherlands; NOR: Norway; L: Luxembourg; P: Portugal; S: Sweden; UK: the United Kingdom

Note: The distance from the diagonal line represents the proportion of total expenditure from private sources (out-of-pocket expenditure and voluntary health insurance).

ent incomes pay different amounts. If affluent people pay proportionately more of their income than the poor the system is progressive. If everyone pays the same proportion regardless of income the system is proportional. And where affluent people pay proportionately less than the poor the system is regressive.

Overall taxation is progressive; however, it depends on the mix of indirect and direct taxes and the number of tax bands. Indirect taxes are normally regressive because those on low incomes spend a greater proportion of their income on consumption. Social health insurance is usually proportional. Upper income ceilings, above which income is exempt from contributions, result in social health insurance being mildly regressive. If an opt-out exists based on income (as in Germany and the Netherlands), it will result in overall financing being more regressive. Voluntary health insurance with individual risk rated premia is highly regressive. Group premia are less regressive and proportional within the firm. Community rated premia are proportional within the community. User charges are highly regressive: means tested exemptions (e.g. for those on low incomes) may reduce regressivity.

2. Is the funding system horizontally equitable?

This concept of equity concerns whether people on the same income pay the same amount for health care. Together with the first objective discussed above it gives a measure of how equitable the financing of health care is. Under each type of revenue collection method there might be a number of reasons why horizontal equity is reduced:

- under taxation if there is variation in local tax rates or differential tax treatment of income and expenditure;
- under social health insurance if there are different contribution rates between funds;
- under voluntary health insurance if individual premia vary according to risk (i.e. family history); group premia vary between firms (large and small employers); community rated premia vary between high-risk and low-risk communities; or
- under user charges if there are non-means tested exemptions e.g. for pregnant women, pensioners or those suffering from chronic diseases.

3. Does the funding system result in redistribution?

The two previous questions have mostly been concerned with the question "who pays and what share do they pay?" It is also important to think about "who receives and what benefits do they get?" Redistribution is concerned with the overall distribution of both the costs and the benefits of the health care system between income groups. The health care system is of course only one amongst several tools available to policy-makers to achieve greater redistribution. For this reason it is difficult (and might not be desirable) to isolate the redistributive effect of health care from that of overall public policy. In addition, because health care benefits are usually provided in-kind, their incidence is harder to measure than for cash benefits. However, it is worth weighing up equity on the financing side with the equity of access to benefits. For example, if additional revenue could be generated through a less progressive system of collection but public spending disproportionately benefited low-income people, the net effect might be better for low-income people than a situation in which collection is more progressive but less is collected and public spending does not benefit people with low incomes to the same degree.

4. How does the funding system affect coverage and access to health care?

Equity of access may be analysed according to who is covered (this will depend on the eligibility criteria associated with a particular system of funding) and what is covered (this will depend on the definition of benefits). Access to services in this context depends primarily on whether access is dependent on the patient's ability to pay or not (in other words whether access is free at the point of use).

Coverage under taxation is usually based on citizenship and/or residence and is therefore universal. Coverage under social health insurance is based mostly but not exclusively on contributory status and is therefore partial. However, in Europe, due to the continual extension of coverage, social health insurance is attaining near universal coverage. Some small groups continue to lack cover. In some countries eligibility is related to residence/-citizenship although health care continues to be funded from social health insurance contributions. Under these circumstance compliance is more difficult. Some of those not eligible for social health insurance may find it difficult to obtain coverage privately due to their age or risk (in the Netherlands subsidised private insurance policies are guaranteed to ensure these people cover).

Voluntary health insurance cover by its nature usually only covers a proportion of the population. Normally insurers have the right to refuse and therefore may exclude high-risk subscribers (known as risk-selection or cream skimming). Before it was made compulsory in Switzerland over 90% of the population had cover. Also in France, before the Universal Health Coverage (CMU) Act 2000, 86% of the population were covered by complementary insurance to cover co-payments.

Under both taxation and social health insurance access to health care services exists regardless of the ability to pay. In practice, there may be non-financial barriers to access (such as waiting lists or distance to travel). Depending on how public insurance is combined with private insurance and user charges it may create inequities in access. Under both voluntary health insurance and user charges, access depends on the patient's ability to pay. User charges impose strong financial barriers to access care, which disproportionately affect the low income, elderly and chronically ill, unless adequate exemption schemes are in place. In addition, they appear to create significant political opposition, as they are highly visible, as described in Box 2.

5. How does the funding system affect cost containment?

The ability to control expenditure has been shown to depend on at least three factors: a (hard) budget for health care, monopsony power (a market situation in which there is a single buyer for all sellers) and provider payment methods.

Due to the budgeting process associated with taxation, there is a fixed budget for health care. This facilitates global cost control but may result in sub-optimal levels of spending. Under social health insurance, expenditure is generally determined by revenue and any overspend is met through increased contribution rates in subsequent years or through tax subsidies. This does not allow for overall controls on expenditure. Other ways of regulating expenditure growth have been attempted: in France the parliament now sets a global budget (target) for health care spending. Under voluntary health insurance, premia levels are determined by individual insurers and will be driven by expenditure (claims) and a desire

to generate a surplus (or profit). Where insurers are free to determine their own rates there is little incentive to control expenditure through efficiency gains.

Traditionally, taxation has been associated with centralized purchasing and monopsony power. Decentralization has created smaller purchasing organizations which may have weaker purchasing power vis-à-vis providers. Social health insurance with a single fund creates a strong purchasing function. Where multiple funds exist purchasing power might be more diffuse. However, if corporate bargaining takes place this may enhance purchaser power.

Social health insurance used to be associated with per diem and fee for service. However, this has begun to change with the introduction of budgets, capitated payments and diagnosis related groups (DRGs). Taxation has historically been associated with budgets, salaries and capitation whereas voluntary health insurance is more usually associated with retrospective reimbursement, direct billing and fee for service.

6. How does the funding system affect the wider economy?

Another aspect of efficiency to consider is the impact of the method of funding health care on the wider economy. Healthy workers are essential to a productive economy: if a particular system of funding cannot deliver sufficient funds to provide quality health care this might adversely affect the economy. The health care industry itself may create jobs and wealth. However, the most commonly debated concern is the financial burden of health care funding on employers.

Social health insurance contributions are levied on earned income and paid by employers and employees. Thus they directly contribute to increased labour costs. It has been argued that high labour costs deter inward investment by multinational companies and may increase unemployment.

Another concern is job mobility, seen as the key to a successful economy. Where health care cover is dependent on employment there may be interference with job mobility. Most voluntary health insurance is purchased on behalf of the employee by the employer (either as a fringe benefit or premia deducted from wages). This may result in a reduction in job mobility, particularly where such insurance is substitutive (i.e. a person's only insurance cover). Conversely, taxation and social health insurance, where cover is neither regionally or occupationally determined, do not provide any disincentives to move jobs.

7. How does the funding system affect allocative and technical efficiency?

Allocative efficiency is essentially concerned with maximizing health given constrained resources. An assessment of allocative efficiency might consider the allocations between health and other areas of public spending: allocations within the health sector to different sectors or cost-effective versus non-cost-effective treatments. Technical efficiency is concerned with maximising outputs for a set of given resources (inputs) or minimising resources (inputs) for a given level of output. Any links between revenue collection and allocative and technical efficiency are difficult to establish through empirical evidence. Indeed, to the extent that these are more a function of purchasing than revenue collection, the links may not exist at all. However, certain methods of collection may have indirect implications for allocative and technical efficiency resulting from their associated market structure of pooling and purchasing.

Macro allocations to health care are normally determined politically under a system of general taxation, but may be pre-determined if there is a strictly hypothecated health tax. Trade-offs are usually possible between health care and other areas of public spending but may also be open to political manipulation and thus result in sub-optimal allocation. Social health insurance contributions are in effect, earmarked so allocations to health care are determined by revenue. Allocations are therefore more susceptible to fluctuations in the economic cycle due to the reliance on wage-related contributions. In voluntary health insurance markets, health care allocations are largely determined by willingness to pay. Where tax subsidies are provided it may result in over-insurance by part of the population. Within the health sector, allocations of public money are usually subject to planning and priority setting by either government or insurance funds, or both, and may use cost-effectiveness information to inform these decisions.

There is no clear evidence that funding methods determine the level of technical efficiency with which health care services are produced. However, administrative and transaction costs may be associated with revenue collection. Central taxation and centrally collected social health insurance contributions benefit from economies of scale which are not fully exploited by local taxation or when individual funds collect contributions. Transaction costs tend to be higher under private health insurance due to considerable administrative costs related to billing, contracting, utilization review and marketing. Risk rating involves extensive administration to assess risk, set premiums, design complex benefit packages and review and pay or refuse claims. Social health insurance which reimburses patients, rather than contracting with providers directly, is likely to face significant administrative costs associated with billing.

Implementation issues

So far, we have looked at the different funding options and to what extent they enable policy-makers to meet certain objectives. How feasible they are, however, will depend on the context. There is no single blueprint that will be appropriate to all countries.

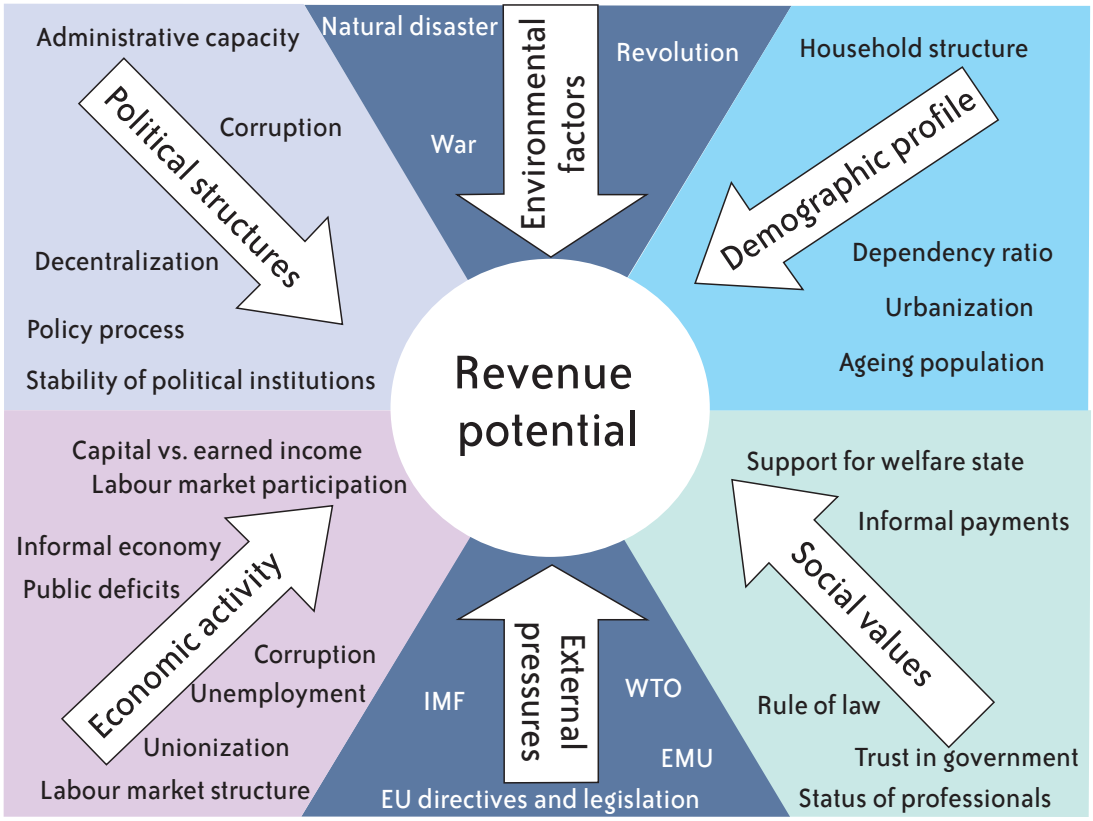
A funding policy, even when based on evidence and experience, has a greater chance of achieving its objectives if the context in which it is to be implemented has been assessed. A number of factors can be identified (see Fig. 3) which may affect the potential size of the revenue pool:

- political structures
- economic activity
- demographic profile
- environmental factors
- external pressures
- social values.

For example, changes in the political economy of the countries of central and eastern Europe both precipitated and influenced the transition to social health insurance (see Box 1). Social values of solidarity and external pressures to contain public expenditure have produced conflicting responses to user charges in western Europe (see Box 2).

Furthermore, the ability to collect sufficient revenue will also depend on the institutional and technical capacity of government, the administration and the health care system. For example, where corruption and fraud are rife within the administration the ability to establish a functioning tax collection system will be impeded.

Fig. 3. Contextual factors affecting the ability to raise revenue for health care



In summary, when weighing up the options for funding health care, wider societal objectives and the feasibility of implementation might be as important as the equity and efficiency of the funding method itself.

Summary

Most health care systems in Europe are funded from a mix of sources, including taxation, social health insurance contributions, voluntary health insurance premia and out-of-pocket payments. Nevertheless, taxation and social health insurance dominate as methods of funding in nearly all European countries, while voluntary health insurance still plays a supplementary role.

The fact that most countries rely on a mix of revenue sources means that evaluating a health care system's performance based on the sources of funding is difficult. However, there are apparent advantages in terms of equity and efficiency of systems of public funding (access free at the point of use, extensive risk pooling, near universal coverage and cost control). User charges and voluntary health insurance relate access to the ability to pay, risk pooling is limited and cost control tends to be weaker. The key to improving policy outcomes is to weigh up carefully the advantages and disadvantages of each funding method and take full account of the context in which the system is intended to operate.

Key references

KUTZIN, J. A descriptive framework for country-level analysis of health care financing arrangements. *Health Policy* **56**(3): 171-203 (2001).

MOSSIALOS E. and THOMSON, S. *Voluntary health insurance in the European Union, Report prepared for the Directorate General for Employment and Social Affairs of the European Commission*, Brussels: European Commission (2002). Available at http://europa.eu.int/comm/employment_social/soc-prot/social/index_en.htm

MURRAY, C. J. and FRENK, J. A framework for assessing the performance of health systems. *Bulletin of the World Health Organization* **78**(6): 717-31 (2000).

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