

Huppertz, Paul-Helmut

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Alternative Principles of Financing Health Care

by Paul-Helmut Huppertz, Cologne*

The minute advances of health policy in the developing countries and the cost explosion which has hit the health services in the industrialized countries have created an urgent problem. The main culprit is often thought to be the "common-burden principle" which most states apply to the financing of their health services. Possible alternatives are the "user principle" which is more in line with market methods and the "originator principle" which is known from its use in the environmental sphere and is now also being discussed in the health sector. It could be applied to products which are injurious to health (cigarettes, sweets) and harmful production processes (piece-work, water pollution). The author examines the possibilities of curbing health-care spending and drawing nearer to health-policy aims by turning away from the "common burden principle".

Most states follow quite different rules in the allocation of economic resources for the financing of their health services. There are differences not merely or primarily between industrial and developing countries but among the advanced industrialized societies as well.

A very important aspect of the – in part deep-seated – divergencies concerns the financial contributions to be made by the users of the system in accordance or analogy with market rules or to be levied on the community without a direct or equivalent return (*User Principle versus Common-Burden Principle*). Among industrialized nations the USA stands in the forefront of the countries in which the bulk of the spending on health services is borne by the private patients or their commercially operating insurance schemes¹; in most other countries the common-burden principle is predominant, no matter whether the services are financed through the public budgets (so-called "taxpayer-pays principle", as in Great Britain and Canada) or by parafiscal contributions (as in France and the Federal Republic of Germany²).

In industrialized states with a social constitution of society the common-burden principle is indicated on ideological grounds. In the Third World on the other hand the development backlog causes even countries with an economic order of a capitalist type to make only rudimentary use of financing methods which are akin, analogous or similar to the rules of the market place. Collective financing methods involving mainly the

public budgets (e. g., Chile), para-governmental institutions (Mexico) or mixed agencies (Colombia) are the rule³.

The critics are focusing more and more on the common-burden principle and this is certainly in some measure due to the slow progress of health policy in industrial and developing countries alike which becomes obvious if the reality is judged by the high demands of the WHO (World Health Organization) definition of health as a state of physical, mental and social well-being. The dominant mode of financing health services is blamed in particular for the "cost spiral"⁴ in the sixties and seventies which turned health service expenditure into "possibly the most rapidly rising component of public spending". The share of the national product spent on the health services rose in the OECD countries for instance between 1962 and 1974 on average by over 1½ percentage points⁵.

¹ In the USA the public sector's share of the health services is about 40 %, equal to no more than 3 % of the national product (all the other advanced industrial states record much higher rates). For details cf. Public Expenditure on Health, OECD Studies in Resource Allocation, No. 4, Paris 1977, p. 94 ff.

² For details cf. Financing of health services, Report of a World Health Organization Study Group, Geneva 1978, p. 115.

³ Ibid. Cf. also J. Penkava: Financing Health Care in Eastern Europe, in: V. Halberstadt, A. J. Culyer (ed.): Public Economics and Human Resources, Paris 1975, p. 203 ff. A detailed survey of the mixed financing system in Colombia is provided by M. Selowsky: Who Benefits from Government Expenditure? – A Case Study of Colombia, Washington D. C., 1979, p. 77 ff.

⁴ S. Y. Wu, M. A. Zaidi: The Cost Spiral in Health Care, in: economic impact, No. 24 (1978/4), p. 42.

⁵ Public Expenditure on Health, OECD Studies . . . , *ibid.*, pp. 28, 73.

*University of Cologne.

Drawbacks of the User Principle

In a number of countries this criticism led to a slight fall of the commanding level of finance from general sources in favour of the user principle⁶. Whether the latter is superior to the common-burden principle under fiscal, allocative or distributive aspects is however highly questionable⁷.

□ The user principle runs counter to the feeling for social justice as shown in other spheres, for instance in regard to costs for injuries suffered in accidents, insofar as the involuntary sufferer of a damage mostly due to external influences has to bear alone the cost of remedial action. Besides, market-oriented departures from the principle of burdensharing involve distributive disadvantages for the lower income groups since the common financing of health services has in most cases a vertical redistribution component.

□ In view of the specific demand structures in the health services the departure from the common-burden principle will – an especially weighty factor in underdeveloped countries – lead to supply deficiencies with a negative effect on the primary allocative objective of maintaining health and curing illnesses: uncertainties about the incidence of illness, the order of magnitude of resources required in the event of illness and the success of employed

remedies⁸ make themselves felt in almost all fields and especially in regard to preventive services. This leads regularly to systematic underestimation of the benefit of self-sustained burdens. The objective need for health-care supplies is hardly ever matched by *individual* incentives in the developing countries to make adequate private financial provisions for the necessary supply level, and even in the industrialized states such incentives are often below par.

□ It is also a matter of doubt whether finance in accordance with the user principle has any cost advantages over the common-burden principle. Not only does the “reduction” of the spending on health services when more consideration is given to market methods amount in the first place merely to a *shifting* of the burden from the public to the private sector, but an empirical comparison of the trend of costs in systems dominated by either of the two principles shows that neither has proved capable of preventing or even retarding the increase of the outlays on health services⁹.

The Originator Principle as an Alternative

It is not surprising then that attempts are made to discover financing methods which offer a genuine alternative to the common-burden principle without suffering from the allocative and distributive drawbacks of the user principle. The so-called “originator principle” may be regarded as such an alternative method. It is actively advocated at present in the environmental sphere for instance (as “polluter-pays principle”), but as far as the health services are concerned, only a few countries have considered it at all and then only in a rather one-sided way. In France it has been proposed in the semi-official “Rapport Bourson” to raise the imposts on alcohol and tobacco for this specific purpose and to introduce a levy on sports which involve particular risks; in the Federal Republic of Germany spokesmen for health insurance institutes and physicians’ organizations have been calling for a “Smokers’ penny” to benefit the insurance schemes and for a special tax on the consumption of sweets¹⁰.

The user vs. common-burden principle discussion can at least be conducted in front of a relatively clear ideological background (privatization or socialization of the risk of illness, control of the health services by market or non-market forces). The political implications and socio-economic effects of a substitution of the originator principle for the common-burden principle on the other hand are obscure and

⁶ This has happened in Great Britain, especially since the Conservatives came to power in 1979, but also – albeit on a moderate scale – in the Federal Republic of Germany under certain rules of the 1977 legislation for the curbing of sickness insurance costs.

⁷ The advantages and drawbacks of balancing needs and production in the health services by the means of the market have been discussed extensively. A few publications only can be mentioned here: A. Maynard: Medical Care and the Price Mechanism, in: K. Judge (ed.): Pricing the Social Services, London and Basingstoke 1980, p. 86 ff.; W. Schönböck: Markt versus Staat im Gesundheitswesen (Market versus state in the health services), in: W. Schönböck (ed.): Gesundheit im gesellschaftlichen Konflikt (Health in the social conflict), Munich-Vienna-Baltimore 1980, p. 295 ff.; K.-D. Henke: Selbstbeteiligung als Kostenbremse? (Self-participation as a brake on costs?), in: WIRTSCHAFTSDIENST 1976/V, p. 236 ff.; J. A. Cairns, M. C. Snell: Prices and the Demand for Care, in: A. J. Culyer, K. G. Wright (ed.): Economic Aspects of Health Services, London 1978, p. 95 ff.

⁸ Subjective uncertainties are listed by W. Schönböck: Markt versus Staat . . . , *ibid.*, p. 295.

⁹ According to OECD calculations public expenditure on health services in the USA rose between 1960 and 1974 less steeply than the total costs of these services (cf. OECD 1977, p. 28). An empirical comparison of the entirely different financing systems of Canada and the USA for the 1953-1973 period lead Th. R. Marmor and E. Tenner to the amazing conclusion that the spending was tententially almost identical. Cf. National Health Insurance: Canada's Path, America's Choices, in: Challenge, May-June 1977, p. 15.

¹⁰ Report on the question of social security to the French National Assembly by Pierre-Alexandre Bourson on behalf of the Control Commission, Assemblée Nationale, no. 1179, p. 129 f.; public statements by H. G. Timmer, chairman of the private German sickness insurance DKV (1977) and E. Knellecken, chairman at the time of the association of public-insurance dentists in North Rhine (1978).

indeterminate. The application of the originator principle amounts at a first glance merely to an internalization of external welfare-lessening effects in the financial calculation of the propagators of these effects: individual and social costs of illness are charged to those who originate the illness. Such transference of the burden from the community of taxpayers (or social insurance members) and users to other shoulders gives at first sight an impression of greater equity and higher directive efficiency:

- It is better adapted to international notions of fair play and more in line with the firmly institutionalized rules governing the allocation of costs in other areas (e. g., for injuries from accidents) than either the user or the common-burden principle.
- It seems to offer incentives for prevention-oriented conduct on the part of those who originate illness; if applied successfully, it could thus reduce the amount of economic resources required in the medium and long term for the health-protection system.
- In the short run it opens a new source of finance capable of narrowing the gap between the requirements and the resources which can be mobilized by way of the common-burden principle; this would be a significant advantage, especially for developing countries beset by financial crises.

Economic-Technical Shortcomings

There are however grounds for scepticism. There are economic-technical shortcomings which call for a more reserved view, and politico-ideological aspects point in the same direction: it is certainly not by chance that the initiators of proposals for the introduction of the originator principle mostly impute to the actual or potential sufferers the blame for illnesses supposedly under their control and brought on solely by their own conduct and fail to allow for causes of illness beyond the individual's control. There are in particular many risks to health in the production of goods¹¹, arising from

- Production processes constituting a threat to the directly employed workers (e. g., piece-work as a risk factor) and/or the environment (e. g., water pollution), and from

¹¹ According to F. N a s h o l d, advanced capitalism has an innate tendency to expose the substantive prerequisites of the production of goods including in particular the reproduction of labour, to risks, cf.: Strukturelle Bestimmungsfaktoren für die Kostenexplosion im Gesundheitswesen (Structural determinants of the cost explosion in the health services), in: A. M u r s w i e c k (ed.): Politik im Sozialsektor, Munich 1976, p. 132 f.

¹² Such validity criteria are, for instance, more even interregional distribution of medical practitioners and optimum capacity loading in the stationary sector.

- Products by which direct consumers (e. g., alcohol consumers) and/or the environment (e. g., cigarette smoke) are put at risk.

If the originator principle were applied only to the individuals at risk, it could not solve any of the present health service problems; it is more likely that it would obscure the whole complex of risks to health which are not caused by those affected but arise primarily as the result of *external* factors at the working place or during leisure time (e. g., noxious working materials, noise, polluted air and water).

What has to be examined are therefore the advantages and drawbacks of a comprehensive originator principle – that is, one which takes in the production process. In order to judge the value of financing arrangements for the health services on a comparative basis, a list of criteria has first to be drawn up by means of which their relative efficiency can be tested. Such a list shows clearly that financing principles are not axiomatic rules but instruments for the design of procedural norms the value or futility of which can only be judged in conjunction with the underlying schema of objectives.

Efficiency Criteria

Starting from the premise that it is the prime aim of health policy to preserve good health, and not to cure illness, the *preventive effect* is the cardinal criterion for all directive measures. The linking of financing rules to the motive of prevention rests on the hypothesis that the financing method is most certainly not without effect on the substantive orientation and development of the health services and that different financing methods have specific directive effects.

There may however be a rationality gap between the desired orientation towards prevention and the in reality overriding criteria for the efficiency of financing methods: in the discussion on health policy a financing method was hitherto considered efficient under directive aspects if it is conducive to either (a) maximum satisfaction of the need for health-care supplies from a predetermined economic resource input or (b) minimum expenditure for a predetermined output¹².

For the attainment of the prime objective efficiency criteria of this kind do not however go far enough. Criterion (a) can only be applied if there is a positive correlation between the provision of health-care and the desired state of health of the population; and criterion (b) may even give rise to irrational conduct in regard to the real objective, namely in the event of

health deficits arising or existing deficits increasing in the face of a constant provision level, in which case the cost of the service would ultimately still go up.

It is thus under both aspects – the satisfaction of needs as well as the alleviation of costs – of some importance whether a financing method

only helps to provide goods and services at a tolerable cost level or, more importantly, also improves the health of the population, the aim on which all health policies should focus;

is directed primarily at curing illness and restoring the former state of health or at preventing the onset of illness (preventive vs. remedial-rehabilitative orientation).

It would certainly be unrealistic to assume that alterations of the existing financing procedure are allocatively effective but without distributive effects; it has therefore also to be examined which specific *distributive* effects follow from the application of alternative principles. In this context it is however necessary not only to analyse the “*input incidence*”¹³ itself but to investigate to what extent the *output* distribution is affected by finance-induced modifications of the volume and structure of the provided supplies and services and also in the interaction sphere of the providers and users of such services or by changes in the state of health of the population; for this can either stiffen the direction of the input incidence or – partly or wholly – compensate or even overcompensate for it.

Institutional Constraints

To keep the list of criteria within bounds, only those other potentially important factors will be considered here which have special significance for the overall development of the political-economic system. They include in particular:

the specific effects of alternative financing methods on the development of the national economy;

the financial efficiency of the outlays on administration and control of the system;

the legal and political problems involved in the enforcement of the financing procedures;

the question whether and to what extent the financing method induces specific modes of conduct which are not acceptable at all or only subject to certain qualifications.

The shortened list shows that these side-effects which are relevant to the system are for the most part not of the sort which have to prove their importance in the process of the evaluation of health-policy objectives; they can be described more correctly as – informal or institutional – constraints which can reduce quite considerably the scope for modification or replacement of component parts of the health service system.

Theoretical-Technological Problems

An attempt to let the costs of the satisfaction of needs fall on those who have *originated* these needs rather than on those who *incur* such needs or the community at large runs up against many impediments. First of all, the concepts of “illness” and “origination” have to be given operational *definitions*. Assuming this is done satisfactorily, there arises the problem of *ascertaining* the origin in the specific case: few indeed are the injuries to health which have not a multifactorial genesis¹⁴; it has so far been impossible to provide unequivocal evidence of cause-effect chains except in the case of relatively simple and short-lived damaging functions (e. g., water pollution), and even then it involved great technical difficulties.

Even if the origin(s) of illness could be established beyond doubt, formidable problems would be encountered in its *attribution* to a causative agent because the illness is in most cases due, not to one agent, but to a whole complex of agents (as in the case of air pollution which increases the risk of cancer but is brought on by a cumulation of noxious emissions). If this complex could be disentangled, the next question would involve an objective *evaluation* of the nature and intensity of every single origin of illness. Besides it would have to be decided what was to be included among the costs of illness – only the cost of the cure or also the productivity and earnings shortfalls for the individual and the economy and perhaps even the intangible factor of impaired enjoyment of life¹⁵.

The present state of the discussion suggests that the broached theoretical and technological problems will for a long time to come remain insolvable as far as most origins of illness are concerned. As long however as the issues bearing on the definition of illness, on its causes and the ascertainment, attribution and assessment of origins and on the costing of remedial treatment remain unsettled or a satisfactory settlement

¹⁴ H. Schaefer, M. Blohmke: Sozialmedizin (Social medicine), 2nd ed., Stuttgart 1978, p. 183.

¹⁵ The problems of objective evaluation certainly present here the greatest difficulties.

¹³ Resource input effects on distribution.

has to be ruled out from the outset because of indeterminably high costs, there will be no acceptable legal foundation for charges based on the causation of illness, to say nothing of their political practicability.

Transference of Financial Burdens

If the mentioned problems of ascertainment and assessment of illness could be solved, it would still not be certain that those who originate it would shift their stance towards prevention: before deciding on a change of conduct or attitude they will usually try to pass on the financial burden of an impost to others. Admittedly, they will not all have an equal chance to pass on such burdens; business firms find it mostly easier to do so than private individuals.

If a causal connection between the production of an article and an illness can be proved in a concrete case and the business firm liable to make a payment tries to pass on the impost to the final consumer through the price of its product, the impost will have the desired preventive effect (or at least part of it) only if the demand for this product is sufficiently elastic to be depressed by the price rise. But if, for instance through mixed costing, the impost is not passed on in a straight line, its preventive effect will be lost. Similar

¹⁶ In an analysis of the distributive effects of the originator principle in the environmental sphere if product prices are passed on U. Brandt concluded for the Federal Republic of Germany by reference to a budget-type consumption structure that the distribution of burdens is progressive; cf.: Zur Problematik negativer externer Effekte – Verursacher- versus Gemeinlastprinzip? (On the problematic nature of negative external effects – originator principle versus common-burden principle?), in: Zeitschrift für Wirtschafts- und Sozialwissenschaften, No. 3/1977, p. 254 ff. M. Pfaff, A. B. Pfaff on the other hand assume that the incidence is if anything regressive because "the poor spend a higher proportion of their income on goods" the prices of which are increased by environmental costs financed by those who originate them; cf.: Auswirkungen der Umweltverschmutzungen und Umweltschutzpolitik (Effects of pollution and anti-pollution policies), in: B. Külp, H.-D. Haas (ed.): Soziale Probleme der modernen Industriegesellschaft, Berlin 1977, p. 188 f.

¹⁷ Although there are still large gaps in our knowledge of differences in the state of health of different social strata, this thesis is supported by such studies as are available. Cf. Lawrence, Gleason, White, Fuchsberg, Wilder: Ärztliche Behandlung, Gesundheitszustand und Familieneinkommen (Medical treatment, state of health and family income), in: H. H. Abholz (ed.): Krankheit und soziale Lage – Befunde der Sozialepidemiologie, Frankfurt 1976, p. 92 ff. These authors made use of a representative sample taken by the US health authorities in 1962/63. For England and Wales analyses have been prepared on the basis of data in the health section of the General Household Surveys by J. Legend: The Distribution of Public Expenditure: The Case of Health Care, in: *Economica*, Vol. 45, p. 126-129, and L. Doyal, I. Pennell: The Political Economy of Health, London 1979, p. 65 f. The only information for the Federal Republic of Germany are so far the findings of the SPES inquiries; cf. C. Heiberger: Ziele und Ergebnisse der Gesundheitspolitik (Aims and results of health policy), in: W. Zapf (ed.): Lebensbedingungen in der Bundesrepublik, Frankfurt, New York 1977, p. 703 ff. For Austria the micro-census of 1973-3 has been analysed by J. Bucek. His findings have been published, i. a., in: M. Fischer-Kowalski, J. Bucek (ed.): Lebensverhältnisse in Österreich (Living conditions in Austria, Frankfurt, New York 1980, p. 18 ff.

considerations apply to the transfer of the burden to suppliers or employees.

In case the burden is left with those who originate the illness it can still not be taken for granted that they will invariably opt for prevention: only those will react in the intended manner who find that the financial outlay on the impost exceeds the cost of preventive action – for instance that of modifying a production process; in all other cases they will probably prefer to bear the expense of the impost. Under allocative aspects a gain of resources for treatment and rehabilitation or else for public investments would in this case compensate for lack of preventive effect; the overall preventive effect would however probably be smaller.

Distributive Effects

The distributive effects of finance by the originator principle – like its directive effect – are affected by the extent and direction of successful attempts to pass on the burden. In the absence of sufficient empirical studies on the incidence of an originator impost¹⁶ it is impossible to be categorical but as it is to be assumed that such an impost could be passed on, though not perhaps completely, insofar as business firms are concerned, it must be said that the hope to shift the whole burden of the costs of illness in this way from the community to those who originate it is illusory; only those private individuals would be hit who originate illness but cannot pass the burden on to others.

It has already been pointed out that it is not enough to look only at the distributive effects of the financing arrangements (as input); relevant are also the distributive effects of the health-policy output insofar as it is determined by the financing method. Under output aspects the originator principle would produce better distributive effects if it encouraged finance-induced prevention: currently available indicators point to especially high health deficits in the lower social groups¹⁷, and application of the originator principle would therefore generate *real* distributive effects by reducing the differential between the social groups.

On the other hand it has to be borne in mind that an originator impost provides protection only if its cost exceeds that of remedying the situation, for instance through change to a non-injurious production process; where the cost relation is the reverse, the workers would still have to risk their health.

This problem may not show itself in its most painful form where the preventive purpose of originator impost has only a global volume effect (e. g., in the case of the

German waste-water levy: the emissions from small firms which prefer paying the levy to bearing the high cost of avoiding to do so make no difference to the attainment of the desired overall degree of purity of the waters¹⁸). But in concrete instances where the state of health depends on the actions of every single originator (as in regard to factory working conditions) this kind of distributive effect can hardly be tolerated.

Heavy Implementation Burdens

In the discussion of the side-effects of the application of the originator principle insofar as they are relevant to the system a distinction must be made between the short- und long-term outlook. To the extent to which the introduction of an originator levy promotes increased preventive investments it results in the short term in larger resource requirements for the health services; additional to these are the administrative costs of the new levy, including in particular the cost of control. Industrialized states would probably find the temporary addition to their expenses acceptable; developing countries could hardly afford to shoulder the burden without external aid.

The dimensions of the negative effect of higher costs on the *economy as a whole* are in dispute. It must not be forgotten however that the induced investments in preventive goods will have multiplier effects which will promote growth and – varying according to factor ratios – also employment¹⁹.

Third World countries with their inordinately high need for investments to clear the development backlog, which they normally cannot finance by themselves, face a genuine conflict of objectives. In this context they will also have to take the positive effects of the attainment of the objectives of health policy into account: improved chances of survival and development for the potential victims of extraneous dangers to their health and, as a result of the better health of the labour force, increases in overall productivity and – in the long term – lower costs in the remedial-rehabilitative sector of the health services.

No Acceptable Alternative

The discussion of the problems arising in connection with the determination of the origins of illness gave already a foretaste of the legal and political issues involved in an implementation of the originator principle.

One of the reasons for the implementation problems is apparently that the originator principle is a less effective means of minimizing conflicts than the common-burden principle²⁰: the allotment of a financial burden to a limited group is liable to meet with more resistance from those affected during the implementation phase than a shifting of costs to the community which is not felt as acutely by the individual.

The fundamental question whether preventive responses should at all be induced by aid of a *financing* method and if so to what extent will be discussed in conclusion. Insofar as it relates to business firms it may be justified on the ground that their decisions are determined by monetary indicators like sales, costs and profits, etc.; financial stimuli fit in with such a system. On the other hand it may well be possible in the business sector to pass on the burden which creates the incentives.

Resort to monetary incentives or fines in order to induce health-promoting conduct is however always of questionable value in the sphere which offers the least scope for passing on burdens and therefore the best chances for price-controlled instruments, namely in that of the private individual, not only because of the problems of identifying individuals as originators of illness but chiefly because in this case there is a danger that it will lead to a mode of conduct suggested exclusively by *financial* (dis)incentives instead of promoting a positive attitude to matters of health.

The originator principle offers thus, taken as a whole, no acceptable alternative to the common-burden principle. The listed criteria demand that the financial method chosen should be practicable, that its directive effect should be likely to meet the allocative objectives, that the concentration on price-determined conduct should be tenable and that there is no prospect of negative effects on growth, employment and distribution. They form in fact an insuperable obstacle to any attempt to act on the originator principle.

¹⁹ To go by the empirical studies so far available, the effects of the protection of the environment on employment are on balance positive rather than negative. For the OECD area cf.: OECD Environment Committee, Group of Experts: *Employment Effects of Environmental Policies*, Paris 1976; and for the Federal Republic of Germany: W. Meißner, E. Hödl: *Auswirkungen der Umweltpolitik auf den Arbeitsmarkt* (Effects of the environmental policy on the labour market), Bonn 1978, and R. Sprenger: *Beschäftigungseffekte der Umweltpolitik* (Employment effects of environmental policy), Munich 1979.

²⁰ K.-H. Hansmeyer: *Finanzpolitische Aspekte der Umweltpolitik: Verursacherprinzip, Gemeinlastprinzip, Abwasserabgabe* (Financial aspects of the environmental policy: The originator principle, the common-burden principle, the waste-water levy), in: *Das Wirtschaftsstudium*, No. 8/1977, p. 373.

¹⁸ K.-H. Hansmeyer: *Die Abwasserabgabe als Versuch einer Anwendung des Verursacherprinzips* (The waste-water levy as an attempt to apply the originator principle), in: O. Issing (ed.): *Ökonomische Probleme der Umweltschutzpolitik*, Berlin 1976, p. 75 f.